

North Carolina Department of Transportation
PROJECT ENVIRONMENTAL CONSULTATION FORM
STIP. No. R-2632AB

I. GENERAL INFORMATION

- a. Consultation Phase: Right-of-Way
- b. Project Description: NC 73, NC 115 to SR 2693 (Davidson-Concord Road)
Widen to Multi-lanes
Mecklenburg County
- c. State Project: 38824.1.2
Federal Project: STP-0073(047)
- d. Document Type: Categorical Exclusion 2009

II. CONCLUSIONS

The above NEPA documentation has been reevaluated (as required by either 23 CFR 771 or by NC General Statute Chapter 113A Article 1). It was determined that the current proposed action is essentially the same as the original proposed action. Proposed changes, if any, are noted below in Section III. It has been determined that anticipated social, economic, and environmental impacts were accurately described in the above referenced document(s) unless noted otherwise herein. Therefore, the original Administration Action remains valid.

III. CHANGES IN PROPOSED ACTION AND ENVIRONMENTAL CONSEQUENCES

Project Description

As part of State Transportation Improvement Program (STIP) Project No. R-2632AB, the North Carolina Department of Transportation (NCDOT) plans to widen NC 73 (Sam Furr Road) between NC 115 (Old Statesville Road) and SR 2693 (Davidson-Concord Road) from two lanes to four lanes with bicycle and pedestrian facilities. The approximately 2.8-mile project would be constructed in the towns of Huntersville and Davidson in Mecklenburg County, as shown in Figure 1 of Appendix B. Right-of-way acquisition is currently scheduled to begin in fiscal year 2020, with construction beginning in fiscal year 2022.

A Categorical Exclusion (CE) was completed in 2009 for project R-2632 for the NC 73 widening from west of US 21 (Statesville Road) to east of Davidson-Concord Road. R-2632 was sectioned into AA and AB for right-of-way and construction. Under R-2632AA, NC 73 was previously widened to four lanes from west of US 21 through the NC 115/NC 73 intersection to Parr Drive. R-2632AA included sidewalks from US 21 to NC 115 and wide outside lanes to accommodate bicycles between NC 115 and Parr Drive. The NC 115/NC 73 intersection improvements were removed from Section AB and completed as R-2632AC. Under R-2632AB, sidewalks will be constructed on NC 73

North Carolina Department of Transportation
PROJECT ENVIRONMENTAL CONSULTATION FORM
STIP. No. R-2632AB

from NC 115 to Parr Drive. No additional improvements are proposed from NC 115 to Parr Drive.

Changes in Proposed Action

A Categorical Exclusion (CE) was prepared for STIP Project No. R-2632 (AA and AB) in 2009. At the time the 2009 CE was signed, R-2632AB was unfunded and there was a commitment to re-evaluate impacts to the human and natural environment when funding became available. Design changes have occurred since the 2009 CE was approved. The design modifications have been identified and are discussed below.

Changes to the R-2632AB design since the 2009 CE include alignment shift, modified typical section, addition of bicycle and pedestrian facilities, lower proposed design and posted speeds, and y-line improvements.

The 2009 CE indicates that widening would be mostly on the north side, except from just east of SR 2147 (Westmoreland Road) to Page's Pond Court, which would be widened to the south. The current design includes widening to the north from Parr Drive to just west of Westmoreland Road and then to the south from just west of Westmoreland Road to the eastern project terminus.

In the 2009 CE, the proposed typical section was two 12-foot travel lanes in each direction, a grass median ranging between 0 and 46 feet, 6-foot inside shoulders (two-foot paved), and 10-foot outside shoulders (four-foot paved). The current typical section is a curb-and-gutter section, two 12-foot lanes in each direction and a 30-foot raised median. Ten-foot wide multi-use paths are proposed on both sides of the road, with a five-foot offset between the face of the curb and the path. Sidewalks would be constructed from NC 115 to Parr Drive, where roadway widening was previously constructed under R-2632AA.

Both designs would limit turning movements to right-in, right-out with directional crossovers placed along the corridor.

The 2009 design proposed a 60 mile-per-hour (mph) design speed with a posted speed limit of 55 mph. The current design proposes a 50 mph design speed with a posted speed limit of 45 mph.

Finally, the 2009 design did not include changes to the NC 73 and Davidson-Concord Road intersection. The current design converts the signalized intersection to a reduced conflict design. Furthermore, the current design includes realigning June Washam Road to intersect with Davidson-Concord Road north of the existing intersection to avoid conflicting with the proposed NC 73/Davidson-Concord Road intersection, and to not preclude construction of a quadrant intersection in the future. Improvements are also proposed along Davidson-Concord Road approximately 2000 feet north of the NC 73 and Davidson-Concord Road intersection.

**North Carolina Department of Transportation
PROJECT ENVIRONMENTAL CONSULTATION FORM
STIP. No. R-2632AB**

Environmental Consequences

Impacts anticipated from the design identified in the 2009 CE, and those anticipated from the current design are shown and compared in Tables 1-2 below. In addition, the following plans have been completed since the 2009 CE was approved:

- The Davidson Concord Road/NC 73 Area Plan (2008)
- Huntersville 2030 Community Plan (2011)
- Mooresville-Charlotte Trail (2013)
- Davidson Walks and Rolls Active Transportation Master Plan (2013)
- Huntersville Greenway and Bikeway Master Plan (2014)
- Davidson Rural Area Plan (2016)
- Bike! Cornelius (2017)

One residential relocation will be required as part of the revised design. The 2009 design did not expect any residential relocations.

Table 1: Comparison of Natural Environment and Community Impacts

	2009 CE Design	Revised Design
Relocations	0	1
Historic Architecture	0	0
Archeology	0	0
Streams	596 LF ¹	710 LF ²
Wetlands	0.016 acres ¹	<0.01 acres ²
EJ	No	No
4(f)/6(f)	0	0
HazMat	0	1
Noise	Noise barriers not deemed feasible	Noise barriers not deemed feasible
FPPA	Does not meet threshold for impacts	Does not meet threshold for impacts
Listed as Strategic Transportation Corridor	Yes	No
Conditional Letter of Map Revision (CLMOR) anticipated	Yes – Ramah Creek floodplain	No (subject to change in final design)
STIP projects in the project vicinity	1	5

¹Impact area based on slope stake and clearing limits; clearing limit amounts not specified in the 2009 CE.

²Impact area is preliminary design slope stake limits plus 25 feet.

**North Carolina Department of Transportation
PROJECT ENVIRONMENTAL CONSULTATION FORM
STIP. No. R-2632AB**

Table 2: Comparison of Threatened and Endangered Species Impacts

Common Name	2009 CE	Revised Design
Bald Eagle	n/a	n/a
Carolina Heelsplitter	May affect, Not Likely to Adversely Affect	No Effect
Michaux's Sumac	No Effect	No Effect
Schweinitz's Sunflower	No Effect	Unresolved between NC 115 and Parr Drive ³
Smooth Coneflower	No Effect	No Effect
Rusty-patched bumble bee	<i>Not listed at that time</i>	No Effect
Northern long-eared bat	<i>Not listed at that time</i>	May Affect – Not Likely to Adversely Affect, In compliance with Final 4(d) Rule

³Survey has been conducted and found to not be present in the study area between Parr Drive and the eastern end of the study area, including along Davidson-Concord Road (SR 2693) and June Washam Road. Survey to be conducted between NC 115 and Parr Drive prior to right-of-way acquisition.

Traffic

The traffic analysis has been updated since approval of the 2009 CE. A comparison of Level of Service (LOS) is shown in Tables 3-4 below.

Table 3: 2009 Traffic Capacity Analysis

2006 Existing		2030 No-Build		2030 Build	
EB	WB	EB	WB	EB	WB
A	C	C	F	A	C

Table 4: 2018 Traffic Capacity Analysis

2017 Existing		2040 No-Build		2040 Build	
AM	PM	AM	PM	AM	PM
D	E	E	E	C	C

IV. LIST OF ENVIRONMENTAL COMMITMENTS

NCDOT will implement all practical measures and procedures to minimize and avoid environmental impacts.

See attached Greensheet.

North Carolina Department of Transportation
PROJECT ENVIRONMENTAL CONSULTATION FORM
STIP. No. R-2632AB

V. COORDINATION

NCDOT personnel have discussed current project parameters with the Federal Highway Administration and external representatives:

- Loretta Barren – FHWA
- Jack Simoneau – Town of Huntersville
- Bill Coxe – Town of Huntersville
- Jason Burdette – Town of Davidson

The following NCDOT Units and groups have been engaged during the evaluation:

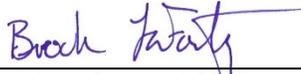
- Biological Surveys
- Community Studies
- Cultural Resources
- Environmental Coordination & Permitting
- GeoEnvironmental
- Hydraulics Unit
- Public Involvement
- Rail Division
- Roadway Design Unit
- Traffic, Noise, & Air Quality

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**North Carolina Department of Transportation
PROJECT ENVIRONMENTAL CONSULTATION FORM
STIP. No. R-2632AB**

VI. CONCURRENCE

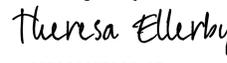
Prepared By:

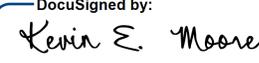
9/13/19	
Date	Brock Laforty, AICP, Project Manager WSP

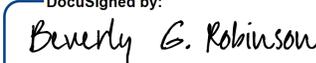
Prepared For:

United States Department of Transportation, Federal Highway Administration, and North Carolina Department of Transportation

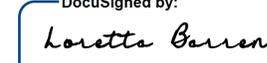
Reviewed By:

9/18/2019	<small>DocuSigned by:</small>  <small>0876C06756C0407...</small>
Date	Theresa Ellerby, CPM, Project Manager North Carolina Department of Transportation, PMU

9/19/2019	<small>DocuSigned by:</small>  <small>7E0B1CE9C15A4A7</small>
Date	Kevin Moore, PE, Senior Project Manager North Carolina Department of Transportation, PMU

9/23/2019	<small>DocuSigned by:</small>  <small>AD3EDDA89DAE4CD...</small>
Date	Beverly G. Robinson, Team Lead North Carolina Department of Transportation, PMU

FHWA Approval:

9/23/2019	<small>DocuSigned by:</small>  <small>6BDD9E254A36D46A...</small>
Date	Loretta Barren, Planning & Environmental Specialist for John F. Sullivan, III, P.E., Division Administrator Federal Highway Administration

Project Commitments

**Mecklenburg County
Widening of NC 73
Federal Project No. STP-0073(047)
WBS No. 38824.1.2
TIP No. R-2632AB**

The following special commitments were agreed to by the North Carolina Department of Transportation (NCDOT) and the Town of Huntersville as part of the 2009 CE.

Project Development and Environmental Analysis:

- Section AB shall be re-evaluated for impacts to the human and natural environment at a later time when funding for that section is available.

This consultation serves as the re-evaluation of human and natural environment impacts.

NCDOT Alternative Delivery Unit/Division 10/Human Environment Unit/Town of Huntersville:

- The NCDOT and the Town will continue to work with residents of affected communities to develop mitigation strategies for neighborhood impacts. The following options will be considered during design: use of landscaping, berms, or vegetative screens based in NCDOT policies and guidelines.

Neighborhood impacts for Section AB (as documented in the 2019 CIA) are expected to be minimal, and concerns about landscaping and vegetation were not brought up during public outreach efforts for Section AB.

- The design and construction of AA shall avoid jurisdictional stream impacts (Stream A).

Section AA has been constructed.

- Prior to and during construction, the NCDOT and the Town shall coordinate with Charlotte-Mecklenburg Schools (CMS) and Emergency Management Services to identify appropriate detour routes for school buses and emergency response services so as not to significantly disrupt school bus operations and emergency response times.

Long term off-site detour routes are not anticipated. NCDOT plans to maintain traffic on the existing roadway with shifts as needed to complete improvements. There may be very short-term closures for traffic shifts and pavement markings. If this plan changes, coordination should occur with Charlotte-Mecklenburg Schools and Emergency Management Services to identify an appropriate detour route.

- The Town shall coordinate with the local media prior to and during construction of Section AA to alert the public of traffic restrictions and construction activities.

Section AA has been constructed.

- The Town of Huntersville desires a wider sidewalk and planting strip for the protected typical section of AA. The Town will incur all costs associated with wider sidewalks and a planting strip if incorporated in final design.

Section AA has been constructed.

Other:

- Future improvements to the rail line (east of NC 115) to accommodate commuter rail service shall be coordinated between Jim Harris, NCDOT State Railroad Coordination Engineer, Wiley McCain at Norfolk Southern Corporation, and David Carroll at CATS.

CATS does not currently have plans for a commuter rail line on the Norfolk Southern rail line east of NC 115. Therefore, coordination with Norfolk Southern on commuter rail is not needed.

- The NCDOT Hydraulics Unit will coordinate with the Federal Emergency Management Agency (FEMA) and local authorities to ensure compliance with applicable floodplain management ordinances.

See new commitments below.

The following new special commitments are applicable to Section AB.

Rail Division:

- NCDOT will coordinate with Norfolk Southern, when final roadway design plans are available, to obtain an agreement for the proposed sidewalks across the Norfolk Southern right of way.

GeoEnvironmental Section:

- The site of concern (11235 Sam Furr Road) identified in the GeoEnvironmental Phase I Report should be reviewed by the GeoEnvironmental Section once final Right-of-Way plans are complete to determine if Phase II investigations and right-of-way recommendations are necessary before acquisition.

Environmental Analysis Unit – Environmental Coordination and Permitting:

- Survey for Schweinitz’s sunflower will be conducted for the expanded study area between NC 115 and Parr Drive, not included in the 2017 NRTR and 2019 Addendum, prior to right-of-way acquisition.

Hydraulics Unit:

- The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), to determine the status of the project with regard to applicability of NCDOT’S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).
- The project involves construction activities on or adjacent to a FEMA-regulated stream. Therefore, NCDOT will submit sealed as-built construction plans to the NCDOT Hydraulics Unit upon completion of project construction, certifying the drainage structures and roadway embankment located within the 100-year floodplain were built as shown on the construction plans, both vertically and horizontally.

Project Management Team:

- The NCDOT Project Manager will coordinate with NCDOT Work Zone Traffic Control about the necessary level of bicycle and pedestrian access needed during construction.
- Multi-use paths and sidewalks are proposed as part of the project. A municipal agreement with the Town of Huntersville will be required prior to construction of these facilities in accordance with the *Complete Streets Policy* (2019).

**North Carolina Department of Transportation
PROJECT ENVIRONMENTAL CONSULTATION FORM
STIP. No. R-2632AB**

Appendices

- A. 2019 R-2632AB CE III
- B. Figures
- C. Relocation Report
- D. Correspondence

Appendix A

Appendix A

Type III Categorical Exclusion Action Classification Form

STIP Project No.	<u>R-2632AB</u>
WBS Element	<u>38824.1.2</u>
Federal Project No.	<u>STP-0073(047)</u>

A. Project Description:

As part of State Transportation Improvement Program (STIP) Project R-2632AB, the North Carolina Department of Transportation (NCDOT) plans to widen NC 73 (Sam Furr Road) between NC 115 (Old Statesville Road) and SR 2693 (Davidson-Concord Road) from two lanes to four lanes with bicycle and pedestrian facilities. The approximately 2.8-mile project would be constructed in the towns of Huntersville and Davidson in Mecklenburg County, as shown in Figure 1 of Appendix B. Right of way acquisition is currently schedule for fiscal year 2020, with construction in fiscal year 2022.

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B. Description of Need and Purpose:

The following conditions demonstrate the need for the project:

- The current year (2017) annual average daily traffic (AADT) along NC 73 ranges from 18,400 vehicles per day (vpd) to 20,000 vpd. In 2040, NC 73 is expected to carry between 39,600 vpd and 46,000 vpd. Population and employment growth will increase travel demand along NC 73, with most sections of the roadway forecasted to increase in traffic volumes by approximately 130 percent in 2040.
- NC 73 is currently congested during peak commuting hours with a volume-to-capacity (v/c) ratio of 0.67 for AM peak and 0.56 for PM peak hours. Without the proposed improvements, the corridor will have a v/c ratio of 0.89 and 0.75 for AM and PM peak hours, respectively. With the proposed improvements, the v/c ratio will be 0.52 for AM peak and 0.63 for PM peak.
- The corridor currently operates at Level of Service (LOS) E during AM and PM peak hours. Without the proposed improvements, the corridor will operate at LOS E in

2040 during AM and PM peak hours. With the proposed improvements, the corridor is expected to operate at LOS C during AM and PM peak hours.

- The R-2632AB project corridor lacks bicycle and pedestrian accommodations. The Charlotte Regional Transportation Planning Organization (CRTPO) Comprehensive Transportation plan recommends improvements to bicycle and pedestrian facilities.

The purpose of the project is to reduce congestion on NC 73 between NC 115 and Davidson-Concord Road, and to provide bicycle and pedestrian accommodations.

C. Categorical Exclusion Action Classification: Type III

D. Proposed Improvements:

A best-fit curb and gutter widening is proposed for STIP Project R-2632AB. Two twelve-foot lanes in each direction and a thirty-foot raised median is proposed for the project. Bicycle and pedestrian accommodations would be provided by ten-foot multi-use paths in each direction between Parr Drive and Davidson-Concord Road. Sidewalks would be constructed from NC 115 to Parr Drive, where roadway widening was previously constructed under STIP Project R-2632AA.

Reduced conflict intersections (with U-turn bulbs) are proposed at Parr Drive, Jamesburg Drive, New Birth Drive, Willow Breeze Lane, Westmoreland Road, Mayes Road, and Davidson-Concord Road. Left turns would be allowed from NC 73 to the cross-streets; however, most access of cross-streets would be restricted to right-in/right-out after construction.

June Washam Road would be realigned to intersect with Davidson-Concord Road north of the existing intersection to avoid conflicting with the proposed NC 73/Davidson-Concord Road reduced conflict intersection, and to not preclude construction of a quadrant intersection in the future.

The posted speed limit is currently 45 miles per hour on NC 73 between NC 115 and Parr Drive and 55 mph between Parr Drive and Davidson-Concord Road. The proposed design speed is 50 mph, with a posted speed limit of 45 miles per hour for the entire project corridor.

Proposed improvements are shown in Figure 2 in Appendix B.

- E. Special Project Information: (Provide a description of relevant project information, which may include: vicinity map, costs, alternative analysis (if any), traffic control and staging, and resource agency/public involvement).

The preliminary cost estimate for the project is provided in Table 1.

Table 1: Preliminary Project Costs

Right-of-Way¹	\$5,225,000
Utilities²	\$3,578,559
Construction Cost³	\$27,400,000
Total Cost	\$36,203,559

¹Source: NCDOT Right-of-Way Estimate, March 2019

²Source: NCDOT Utility Estimate, February 2019

³Source: NCDOT Preliminary Construction Estimate, January 2019

A summary of anticipated impacts for the Preferred Alternative is shown in Table 2.

Table 2: Preliminary Impacts

Relocations	Residential	1
	Business	0
	Other	0
Minority/Low-Income Populations (Disproportionate Impacts)		0
Community Resource Impacts		0
Section 4(f) Impacts		0
Section 6(f) Impacts		0
Impacts to Noise Receptors		5
Streams (linear feet) ¹		710.3
Wetlands (acres) ¹		<0.01
Federally Protected Species ²	Rusty-patched bumble bee	No Effect
	Smooth coneflower	No Effect
	Schweinitz's sunflower	Unresolved
	Carolina heelsplitter	No Effect
	Northern long-eared bat	May Affect – Not Likely to Adversely Affect, In Compliance with Final 4(d) Rule
	Michaux's sumac	No Effect
Hazardous Materials Sites		1 (low)
Floodplain Impacts (acres) ¹		1.3
Prime Farmland Impacts (acres) ¹		48.8
Access Impacts		Median proposed
Bicycle and Pedestrian Impacts		Facilities would be constructed - benefit

¹ Impacts based on preliminary design slope stakes plus 25 feet.

² Due to study area expansion, survey for Schweinitz's sunflower has not been conducted between NC 115 and Parr Drive. This survey will be done prior to right-of-way acquisition.

2009 CE

A Categorical Exclusion (CE) was prepared and signed in 2009 for R-2632, which included both R-2632AA and R-2632AB. R-2632AA extended along NC 73 from US 21 to NC 115. In 2009, R-2632AB was not funded. Impacts to the human and natural environmental were committed to be re-assessed when the project was funded. This document serves as the update to the 2009 CE and addresses improvements related to the R-2632AB project.

Alternatives

No-Build Alternative

No improvements would be made with the No-Build alternative. Based on 2040 traffic analysis, congestion would worsen along the corridor with AM and PM Peak hours operating at a Level of Service (LOS) E (see Table 3 below). The No-Build alternative does not meet the project's purpose and need and is therefore not recommended.

Build Alternatives

One best-fit widening alternative was analyzed. Projected LOS for this alternative is shown below in Table 3.

Table 3: LOS for R-2632AB

2017 Existing		2040 No-Build		2040 Build	
AM	PM	AM	PM	AM	PM
D	E	E	E	C	C

The NC 115 and NC 73 intersection was improved as part of R-2632AA. The Davidson-Concord Road intersection is the only other signalized intersection in the study area and was the only intersection where alternatives were evaluated.

The intersection alternatives would not adversely impact waters of the U.S, threatened and endangered species, historic architecture or archaeological resources, or community resources (e.g., churches, schools, parks, etc.). Based on a comparison of traffic benefits and potential right-of-way impacts, a reduced conflict intersection was selected. LOS and delay for this intersection's alternatives are shown in Table 4 below.

Table 4: LOS and Delay for Davidson-Concord Road Intersection Alternatives

		Reduced Conflict	NE Quad	SW Quad	CFI
AM	LOS	C	D	D	C
	Delay(sec)	23.08	43.47	51.79	34.82
PM	LOS	C	D	C	C
	Delay(sec)	25.48	50.00	32.10	26.60

Stakeholder Coordination

Numerous meetings were held with stakeholders during project development. These meetings are listed below:

- Presentations to the NC 73 Council of Planning in September 2017, February 2018, October 2018, and January 2019 (by conference call).
- Meetings with officials from the Town of Huntersville and Town of Davidson in March 2018 and October 2018.
- Internal scoping meeting held August 8, 2017.
- External scoping meeting held September 20, 2018.

These meetings allowed local stakeholders to provide input and feedback on typical sections, intersection alternatives, bicycle and pedestrian facilities, and consistency with local plans and proposed developments.

Public Involvement Summary

Public meetings were held on January 28 and 29, 2019 for the project and the adjacent STIP Project R-5706. Three hundred and sixty-two citizens participated in both meetings. During the meetings, participants asked questions of the project team and the viewed digital maps of both R-2632AB and R-5706. The public comment period was open until February 13, 2019. Comments were submitted at the meetings, by mail, by email, or through the “Contact Us” tool on the project website. For the R-2632AB project, nine comment forms, seventeen emails, two phone calls, and one letter were received.

A newsletter was distributed to the project mailing list on August 15 providing updates the project schedule and design, answered frequently asked questions, and announced the selection for the Least Environmentally Damaging Practicable Alternative for R-5706.

Local officials meetings were held prior to both public meetings.

A summary of common concerns and questions are listed below:

- Traffic impacts related to the conversion of NC 73 and Davidson-Concord Road to a reduced conflict intersection.
- Property access and travel time delays associated with the introduction of a median and u-turns.
- What bicycle and pedestrian facilities would be provided and how these would tie into existing networks?
- What effect the project would have on stormwater and drainage?

Technical Reports

The following technical reports and summaries were prepared for the project and can be found in the project file:

- Cultural Resource Findings – March 2016, September 2017, December 2018, April 2019
- Natural Resources Technical Report – July 2017
- Northern Long-Eared Bat Biological Assessment Memorandum – July 2017

- Internal and External Scoping Meeting summaries - August 2017 and September 2018
- Traffic Forecast – September 2017
- Preliminary Hydraulic Technical Report and Preliminary Design Report – November 2017
- Air Quality correspondence – September 2018
- Freshwater Mussel Biological Assessment Memorandum – September 2018
- Indirect and Cumulative Effects Report – October 2018
- Traffic Noise Report – December 2018
- GeoEnvironmental Phase I Memorandum – April 2019
- Traffic Noise Report Addendum – April 2019
- Community Impact Assessment – May 2019
- Maintenance of Traffic Correspondence – June 2019
- Natural Resources Technical Report Addendum – June 2019
- Traffic Impact Study – June 2019
- Public Comment Summary Memorandum - August 2019

F. Project Impact Criteria Checklists:

<u>Type III Actions</u>		Yes	No
If the proposed improvement is identified as a Type III Class of Action answer all questions. • The Categorical Exclusion will require FHWA approval. • If any questions are marked “yes” then additional information will be required for those question in Section G.			
1	Does the project involve potential effects on species listed with the US Fish and Wildlife Service (USFWS) or National Marine Fisheries (NMFS)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	Does the project involve substantial residential or commercial displacements or right of way acquisition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	Does the project include a determination under Section 4(f)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	Is a project-level analysis for direct, indirect, or cumulative effects required based on the NCDOT community studies screening tool?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8	Is a project level air quality Mobile Source Air Toxics (MSAT) analysis required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	Does the project impact anadromous fish?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Does the project impact waters classified as as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11	Does the project impact waters of the United States in any of the designated mountain trout streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14	Does the project include Section 106 of the National Historic Preservation Act (NHPA) effects determination other than a no effect, including archaeological remains? Are there project commitments identified?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15	Does the project involve hazardous materials and/or landfills?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16	Does the project require work encroaching and adversely effecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18	Does the project require a U.S. Coast Guard (USCG) permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Type III Actions (continued)</u>		Yes	No
21	Does the project impact federal lands (e.g. USFS, USFWS, etc.) or Tribal Lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22	Does the project involve any changes in access control?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24	Will maintenance of traffic cause substantial disruption?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), Tribal Lands, or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28	Is the project considered a Type I under the NCDOT's Noise Policy?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
29	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
30	Are there other issues that arose during the project development process that effected the project decision?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

G. Additional Documentation as Required from Section F

Response to Question #1 – Potential Effects on Listed Species

On April 2, 2015 the United States Fish and Wildlife Service (USFWS) published their final ruling designating the northern long-eared bat (NLRB) as Threatened with an Interim 4(d) Rule under the Endangered Species Act. The Final 4(d) Rule was announced on January 14, 2016 and became effective on February 16, 2016. Under the Final 4(d) Rule. In western North Carolina, including Mecklenburg County, incidental take of northern long-eared bat without a permit is prohibited within hibernation sites, within ¼ mile of a known hibernation site, and within a 150-foot radius of a known, occupied maternity roost during the pup season (June 1 – July 31).

The NCDOT Biological Surveys Group conducted the appropriate habitat assessment on July 17, 2017. NCDOT has reviewed the USFWS Asheville Field office website (https://www.fws.gov/asheville/htmls/project_review/NLEB_in_WNC.html) for consistency with NCNHP records. This project is located entirely outside of the red highlighted areas (12-digit HUC) that the USFWS Asheville Field Office has determined to be representative of an area that may require consultation. A review of NCNHP records on April 24, 2019 indicates no known occurrence of this species within 1.0 mile of the study area. NCDOT has determined that the proposed action does not require separate consultation on the

grounds that the proposed action is consistent with the final Section 4(d) rule, codified at 50 C.F.R. § 17.40(o) and effective February 16, 2016. NCDOT may presume its determination is informed by best available information and consider Section 7 responsibilities fulfilled for NLEB.

Additional field review will be needed to assess the presence of Schweinitz's sunflower in the expanded study area between NC 115 and Parr Drive, not included in the 2017 Natural Resources Technical Memorandum or 2019 Addendum. The remainder of the study area was reviewed and determined to not contain threatened and endangered species.

Response to Question #7 – Direct, Indirect and Cumulative Effects

The Community Impact Assessment (CIA) found the project would have minimal long-term impacts to the surrounding communities, aside from changes to access created through construction of a proposed median. The project may cause temporary delays during construction. Travel time impacts may affect school bus transportation and emergency management services transportation more than other travelers, but NCDOT plans to coordinate with local EMS and schools prior to and during construction.

The project will not alter travel patterns, reduce travel times, affect access to properties in the area, or open areas for development or redevelopment. Due to its minimal transportation impact-causing activities, this project will neither influence nearby land uses nor stimulate growth.

Response to Question #10 – Buffer Rules

No State-regulated buffers are located within the project study area. The proposed improvements intersect Surface Water Improvement and Management (SWIM) and Post-Construction Buffers, regulated by Mecklenburg County, the Town of Huntersville, and the Town of Davidson, for Ramah Creek and unnamed tributaries to Ramah Creek.

Response to Question 15 - Hazardous Materials and/or Landfills

The GeoEnvironmental Phase I Report identified one site of concern within the study area; based on current design, some acquisition may be required at this site. RV Boat and Storage of Lake Norman/Action Cleanup and Restoration is located across NC 73 from Parr Drive at 11235 Sam Furr Road. Chemicals and fueling are presumably in use. Low monetary and scheduling impacts are anticipated due to this site.

Response to Question #16 – Effects to Floodways and Base Floodplain Elevation

Ramah Creek crosses NC 73 between New Birth Drive and Willow Breeze Lane. The project is likely to encroach upon the floodway and floodplain of the Creek. The Preliminary Hydraulic Technical Report recommended replacing the existing 78-inch corrugated metal pipe (CMP) with a 1 @ 7' x 7' RCBC. While structure recommendations are made in the Preliminary Hydraulic Technical Report with the intention of producing no increases in base flood elevation, effects to base flood evaluation cannot be confirmed until final Hydraulic Design is complete.

Response to Question #22 – Access Control

Control of access does not currently exist on NC 73 and is not proposed as part of R-2632AB except at the U-turn bulbs where full control of access will be purchased, which will prohibit connection of driveways to the bulbs.

Some concerns were raised during the public comment period about the effect the introduction of a median and U-bulb turns would have on property access and travel times.

Response to Question #28 – Traffic Noise

Introduction

In accordance with Title 23 Code of Federal Regulations Part 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise* (Title 23 CFR 772) and the North Carolina Department of Transportation *Traffic Noise Policy*, each Type I highway project like this must be analyzed for predicted traffic noise impacts. In general, Type I projects include projects that construct a highway on new location; add through-lanes to an existing highway; provide a substantial horizontal or vertical alteration to an existing highway; add or relocate interchange lanes or ramps to complete an existing partial interchange; or build new or substantially alter existing weigh stations, rest stops, ride-share lots or toll plazas.

Traffic Noise Impacts.

Traffic noise impacts are determined through implementing the current Traffic Noise Model (TNM[®]) Version 2.5 and following procedures detailed in 23 CFR 772 (*Procedures for Abatement of Highway Traffic Noise and Construction Noise*) and the NCDOT *Traffic Noise Policy*. The maximum number of receptors predicted to become impacted by future traffic noise due to the Build Alternative is shown in Table 5. The table includes those receptors expected to experience traffic noise impacts by either approaching or exceeding the FHWA Noise Abatement Criteria or by a substantial increase in exterior noise levels.

*Table 5: Predicted Traffic Noise Impacts due to the Build Alternative**

Alternative	Traffic Noise Impacts			
	Residential (NAC B)	Places of Worship, Schools, Parks, etc. (NAC C & D)	Businesses (NAC E)	Total
Build Alternative	5	0	0	5

*Per TNM 2.5 and in accordance with 23 CFR Part 772

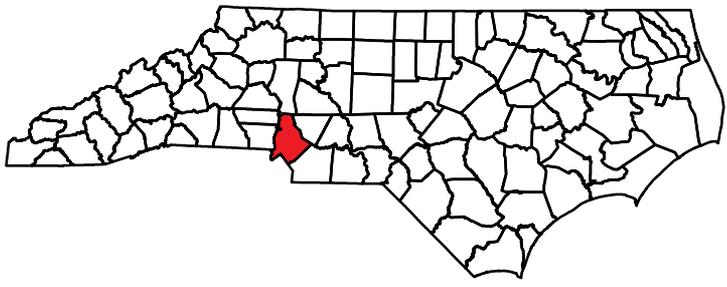
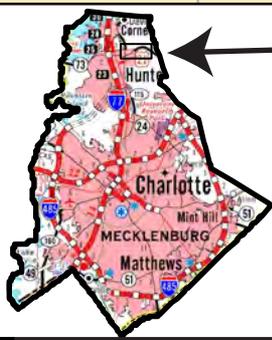
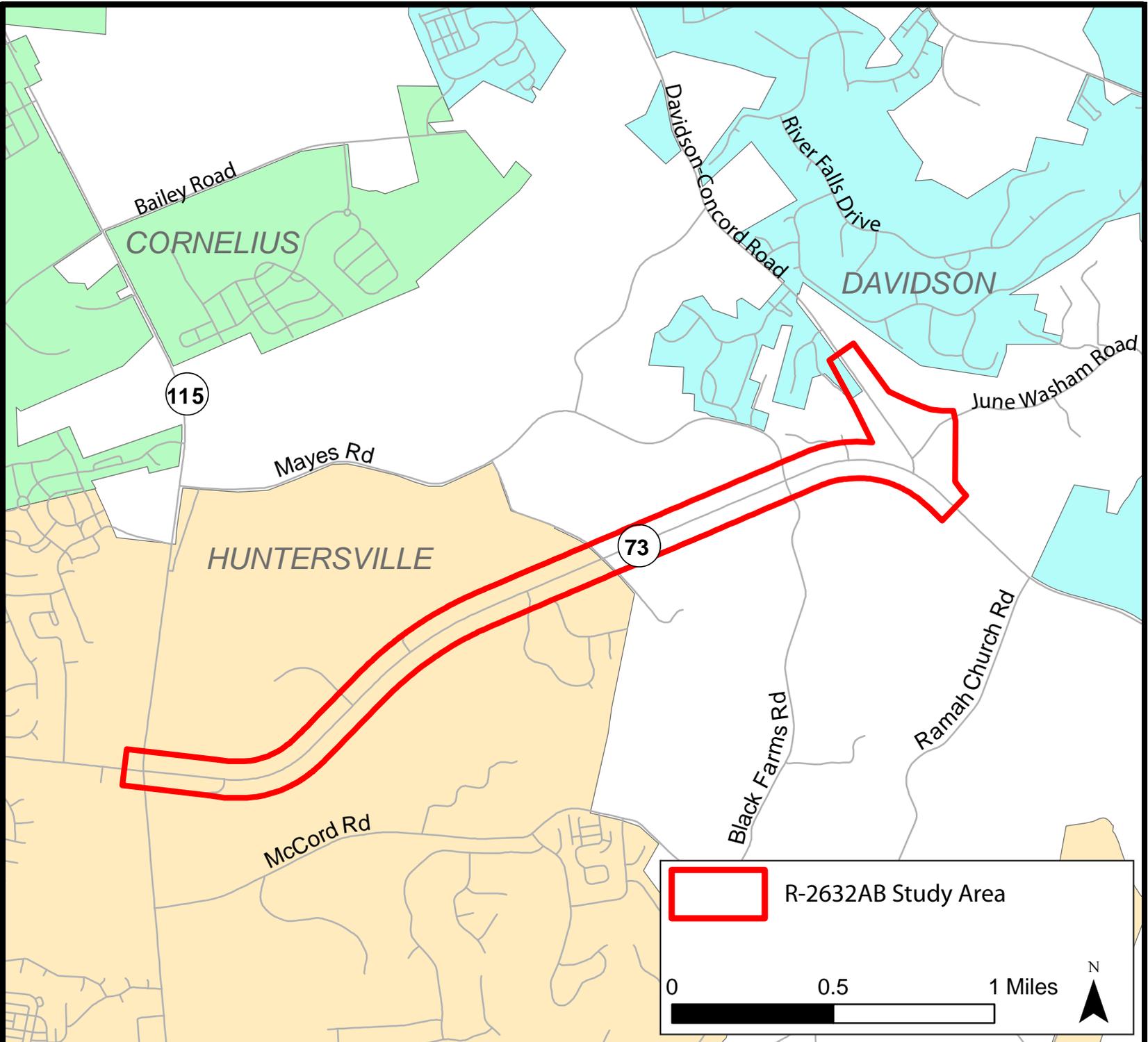
Noise Barriers

Traffic noise abatement was considered for all impacted receptors. However, due to the isolated nature of several receptors and the presence of driveways along NC 73, noise abatement would not be feasible and reasonable, and none is likely to be constructed. This completes the requirements for traffic noise analysis under 23 CFR 772 and the NCDOT Traffic Noise Policy. No additional noise studies will be necessary unless warranted by a substantial change in the project design and/or forecasted traffic volumes.

Response to Question #29 – Farmland Soils

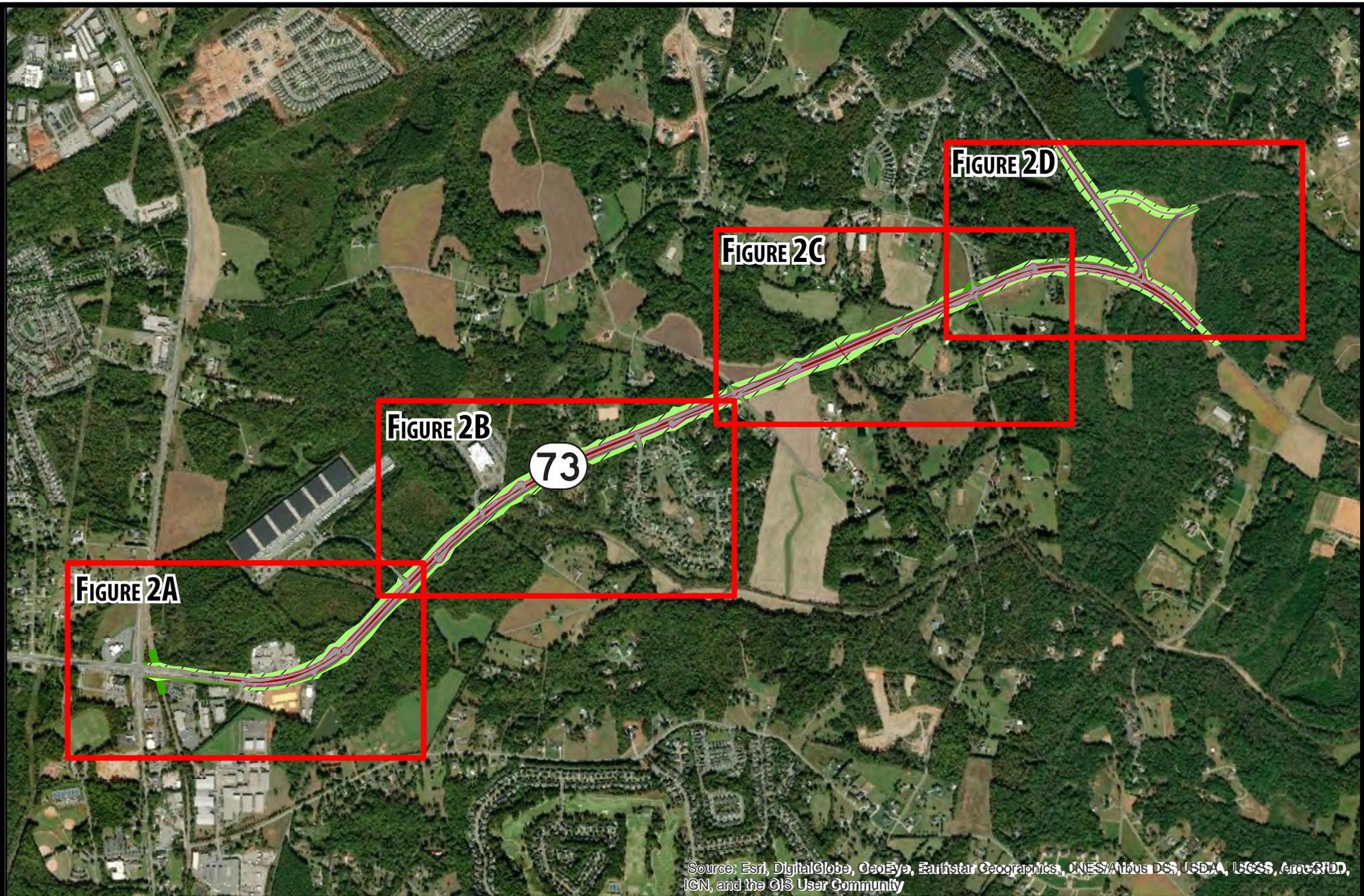
A preliminary screening of farmland conversion impacts in the project area has been completed and a total score of 38 out of 160 points was calculated for the R-2632AB project site. Since the total site assessment score does not exceed the 60-point threshold established by NRCS, farmland conversion impacts may be anticipated, but are not considered notable.

Appendix B



Project Vicinity Map
 N.C. 73 Widening from N.C. 115 (Old Statesville Road)
 to S.R. 2693 (Davidson-Concord Road)
 TIP No: R-2632AB
 WBS #: 38824.1.2
 Mecklenburg County
 August 2019

Figure 1

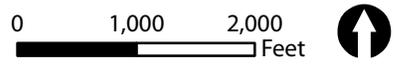


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



PROPOSED IMPROVEMENTS
 NC 73 WIDENING FROM NC 115 (OLD STATESVILLE ROAD)
 TO SR 2692 (DAVIDSON-CONCORD ROAD)
 TIP No: R-2632AB | WBS #: 38824.1.2
 AUGUST 2019
 FIGURE 2 - MAP KEY

 **FIGURE NUMBER**



0 250 500 Feet



115

OLD STATESVILLE ROAD

73

PARR DRIVE

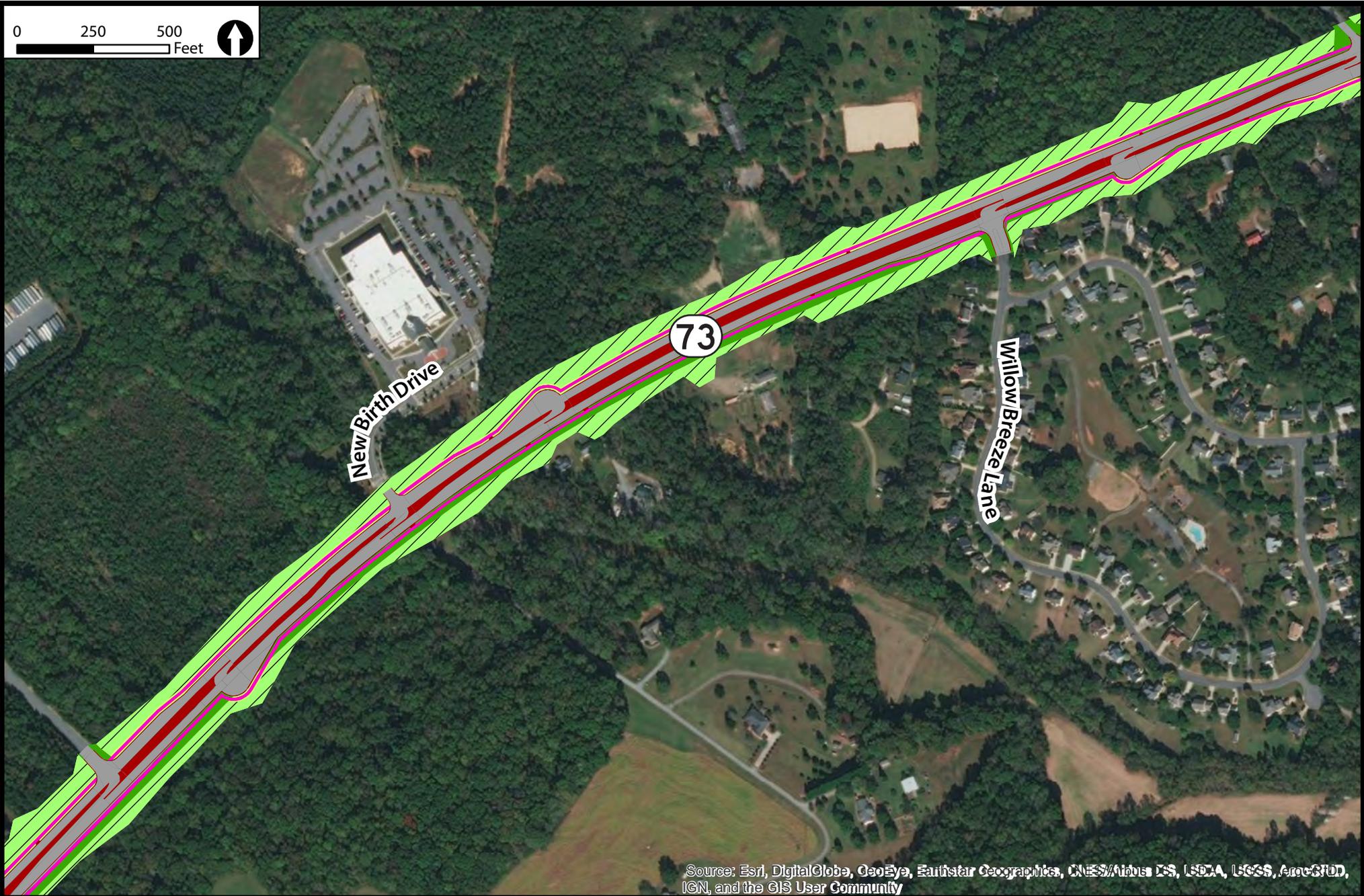
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



PROPOSED IMPROVEMENTS
NC 73 WIDENING FROM NC 115 (OLD STATESVILLE ROAD)
TO SR 2692 (DAVIDSON-CONCORD ROAD)
TIP No: R-2632AB | WBS #: 38824.1.2
AUGUST 2019
FIGURE 2A

-  PROPOSED EDGE OF PAVEMENT
-  PROPOSED MEDIAN AND CONCRETE BARRIER
-  PROPOSED MULTI-USE PATHS
-  PROPOSED SIDEWALKS
-  EXISTING ROADWAY TO BE REMOVED
-  EXISTING RIGHT-OF-WAY
-  PROPOSED RIGHT-OF-WAY
-  PROPOSED CONSTRUCTION EASEMENT

0 250 500 Feet



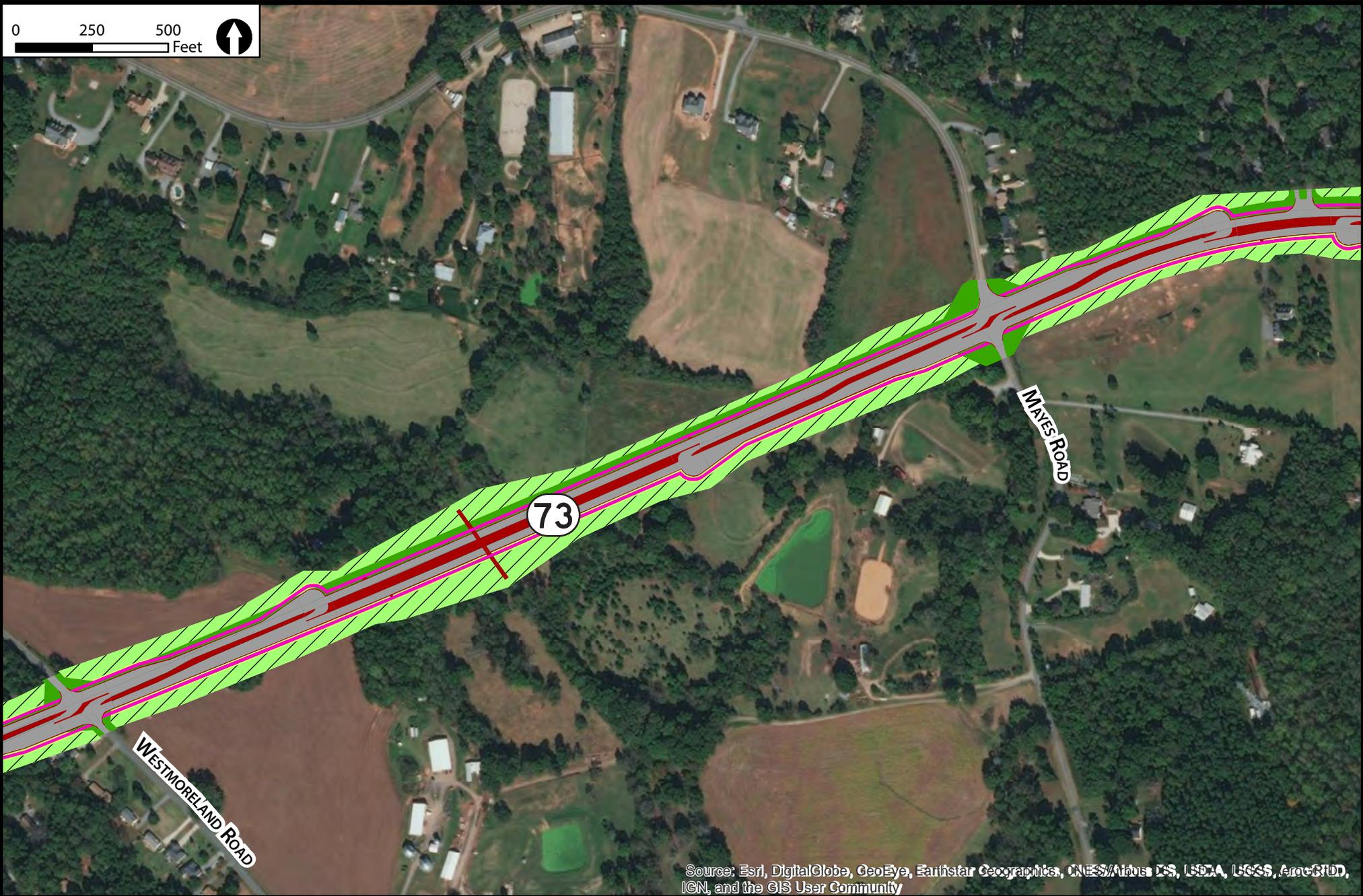
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



PROPOSED IMPROVEMENTS
 NC 73 WIDENING FROM NC 115 (OLD STATESVILLE ROAD)
 TO SR 2692 (DAVIDSON-CONCORD ROAD)
 TIP No: R-2632AB | WBS #: 38824.1.2
 AUGUST 2019
 FIGURE 2B

- | | | | |
|---|--------------------------------------|---|--------------------------------|
|  | PROPOSED EDGE OF PAVEMENT |  | EXISTING ROADWAY TO BE REMOVED |
|  | PROPOSED MEDIAN AND CONCRETE BARRIER |  | EXISTING RIGHT-OF-WAY |
|  | PROPOSED MULTI-USE PATHS |  | PROPOSED RIGHT-OF-WAY |
|  | PROPOSED SIDEWALKS |  | PROPOSED CONSTRUCTION EASEMENT |

0 250 500 Feet



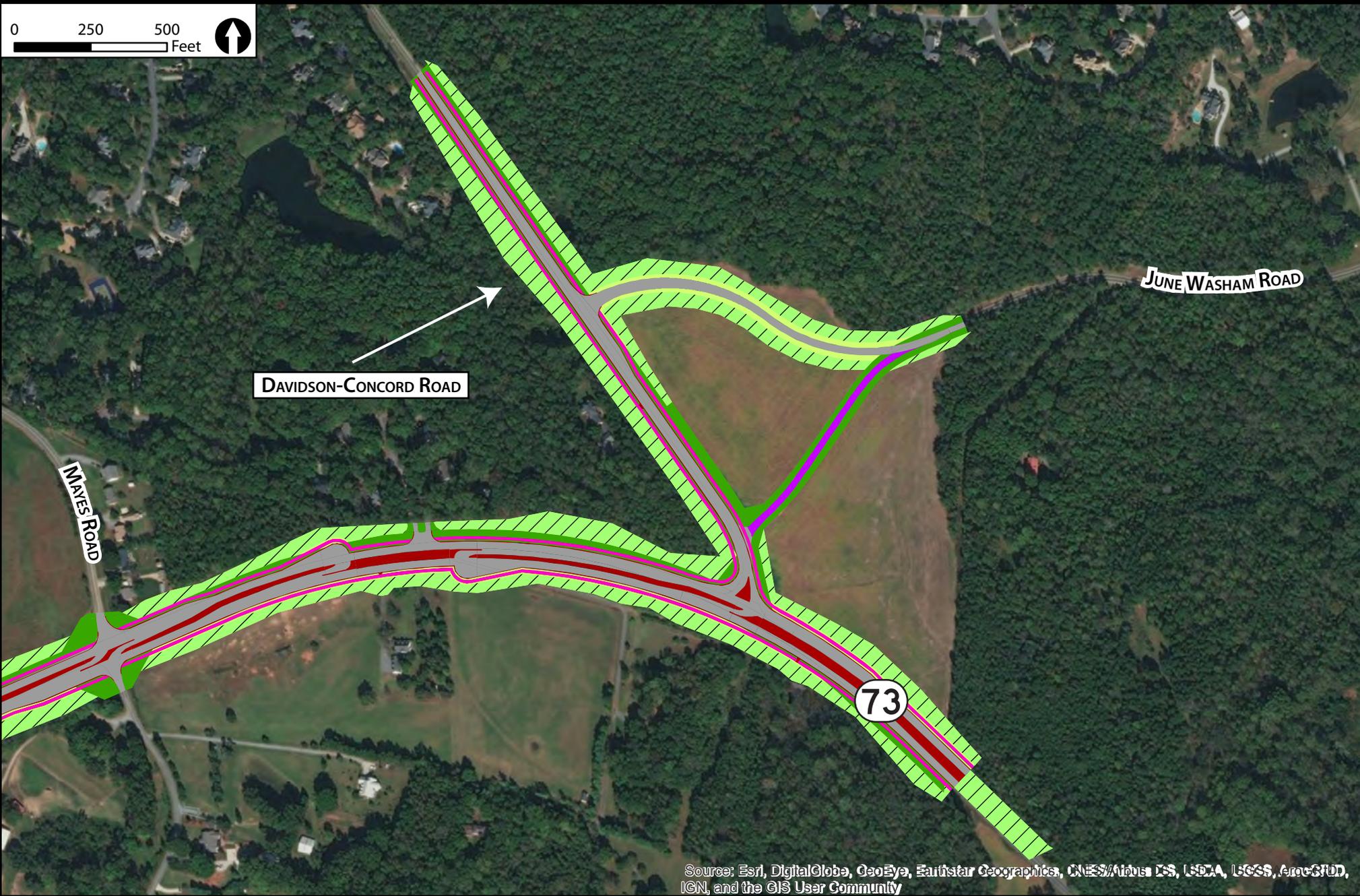
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



PROPOSED IMPROVEMENTS
 NC 73 WIDENING FROM NC 115 (OLD STATESVILLE ROAD)
 TO SR 2692 (DAVIDSON-CONCORD ROAD)
 TIP No: R-2632AB | WBS #: 38824.1.2
 AUGUST 2019
 FIGURE 2C

	PROPOSED EDGE OF PAVEMENT		EXISTING ROADWAY TO BE REMOVED
	PROPOSED MEDIAN AND CONCRETE BARRIER		EXISTING RIGHT-OF-WAY
	PROPOSED MULTI-USE PATHS		PROPOSED RIGHT-OF-WAY
	PROPOSED SIDEWALKS		PROPOSED CONSTRUCTION EASEMENT

0 250 500 Feet

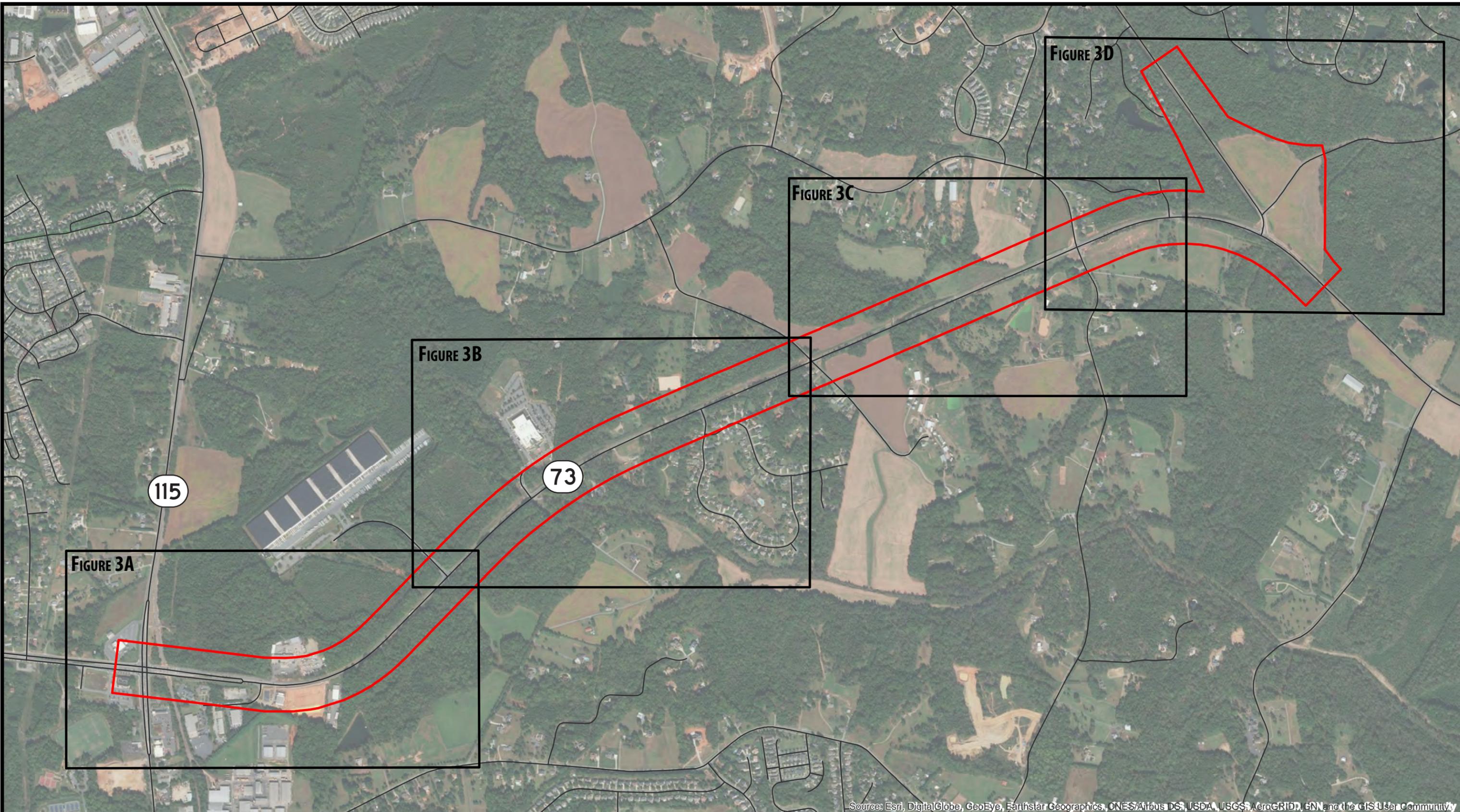


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



PROPOSED IMPROVEMENTS
 NC 73 WIDENING FROM NC 115 (OLD STATESVILLE ROAD)
 TO SR 2692 (DAVIDSON-CONCORD ROAD)
 TIP No: R-2632AB | WBS #: 38824.1.2
 AUGUST 2019
 FIGURE 2D

- | | | | |
|---|--------------------------------------|---|--------------------------------|
|  | PROPOSED EDGE OF PAVEMENT |  | EXISTING ROADWAY TO BE REMOVED |
|  | PROPOSED MEDIAN AND CONCRETE BARRIER |  | EXISTING RIGHT-OF-WAY |
|  | PROPOSED MULTI-USE PATHS |  | PROPOSED RIGHT-OF-WAY |
|  | PROPOSED SIDEWALKS |  | PROPOSED CONSTRUCTION EASEMENT |



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



ENVIRONMENTAL FEATURES MAP

STIP No. R-2632AB | WBS No. 38824.1.2

MECKLENBURG COUNTY

AUGUST 2019

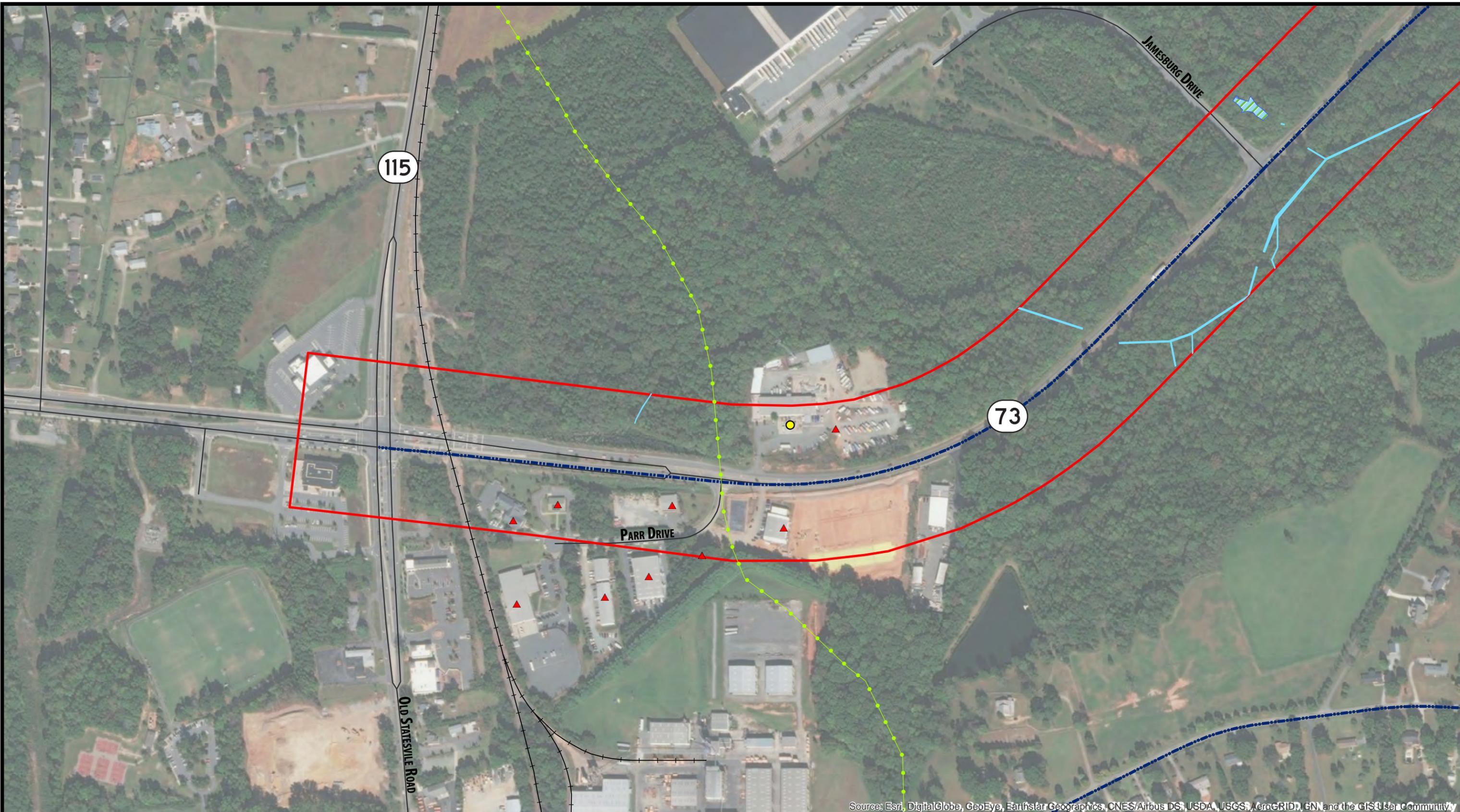
FIGURE KEY

 Figure Number

 Study Area

0 500 1,000
Feet





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



ENVIRONMENTAL FEATURES MAP

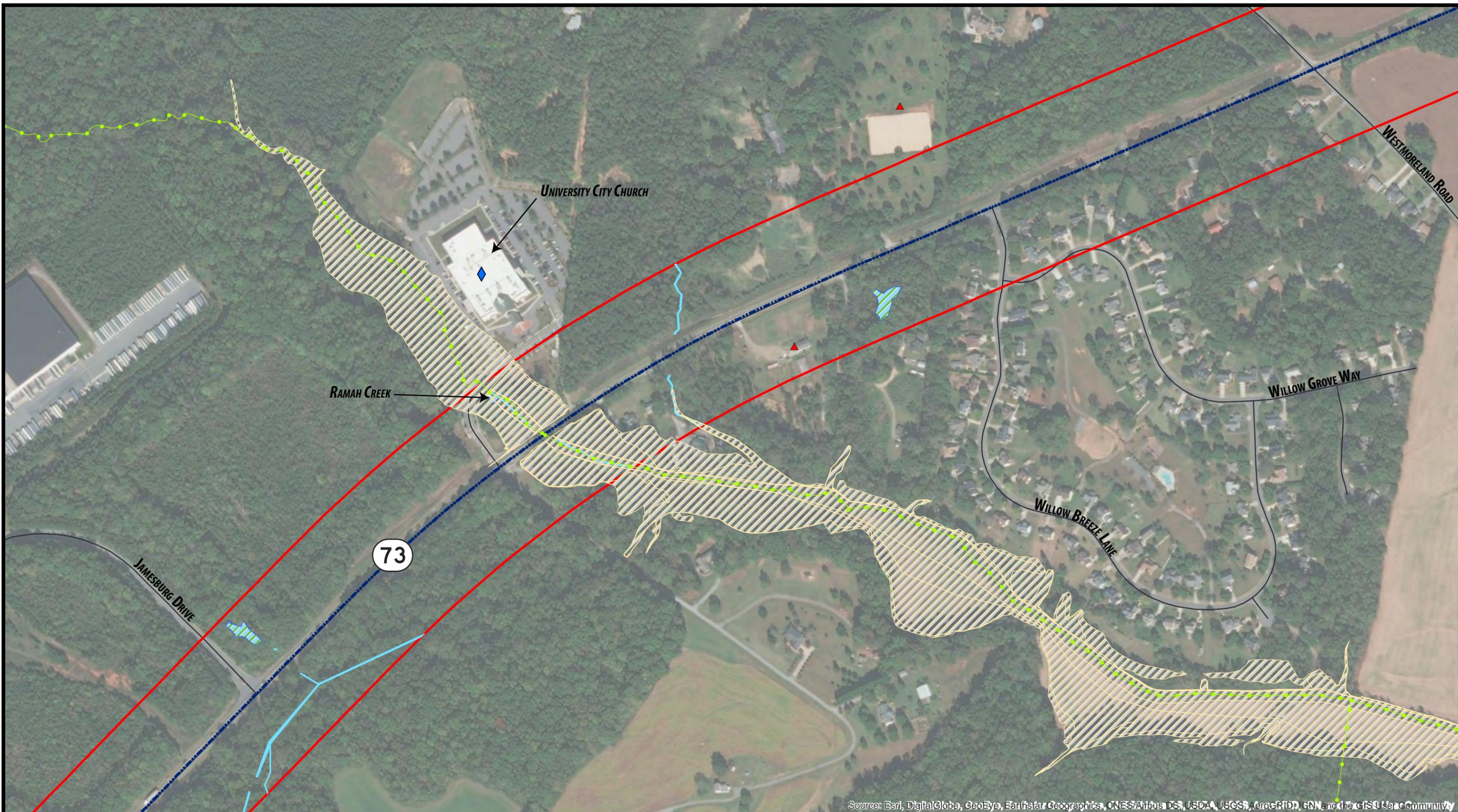
STIP No. R-2632AB | WBS No. 38824.1.2

MECKLENBURG COUNTY

AUGUST 2019

FIGURE 3A





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



ENVIRONMENTAL FEATURES MAP

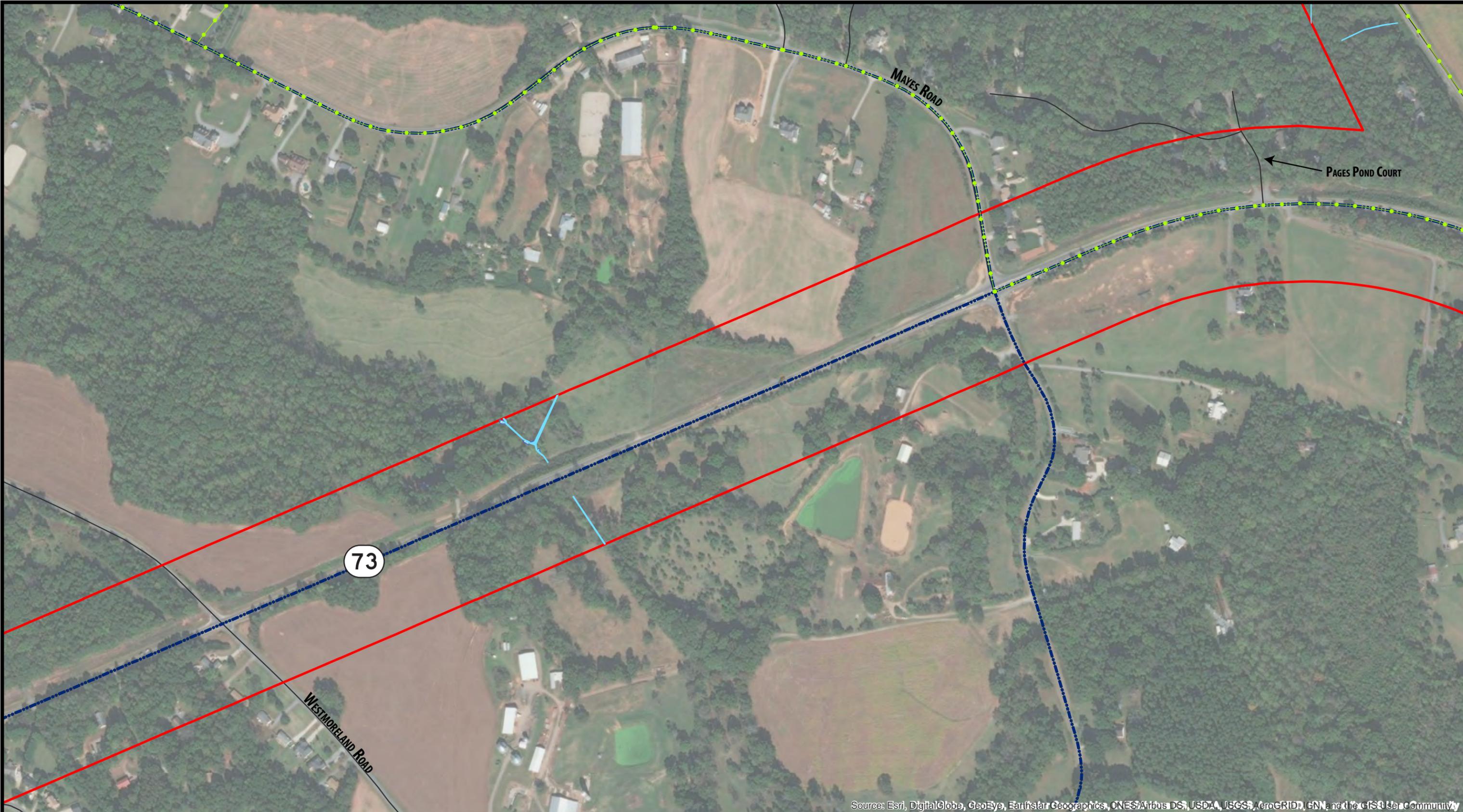
STIP No. R-2632AB | WBS No. 38824.1.2

MECKLENBURG COUNTY

AUGUST 2019

FIGURE 3B





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



ENVIRONMENTAL FEATURES MAP

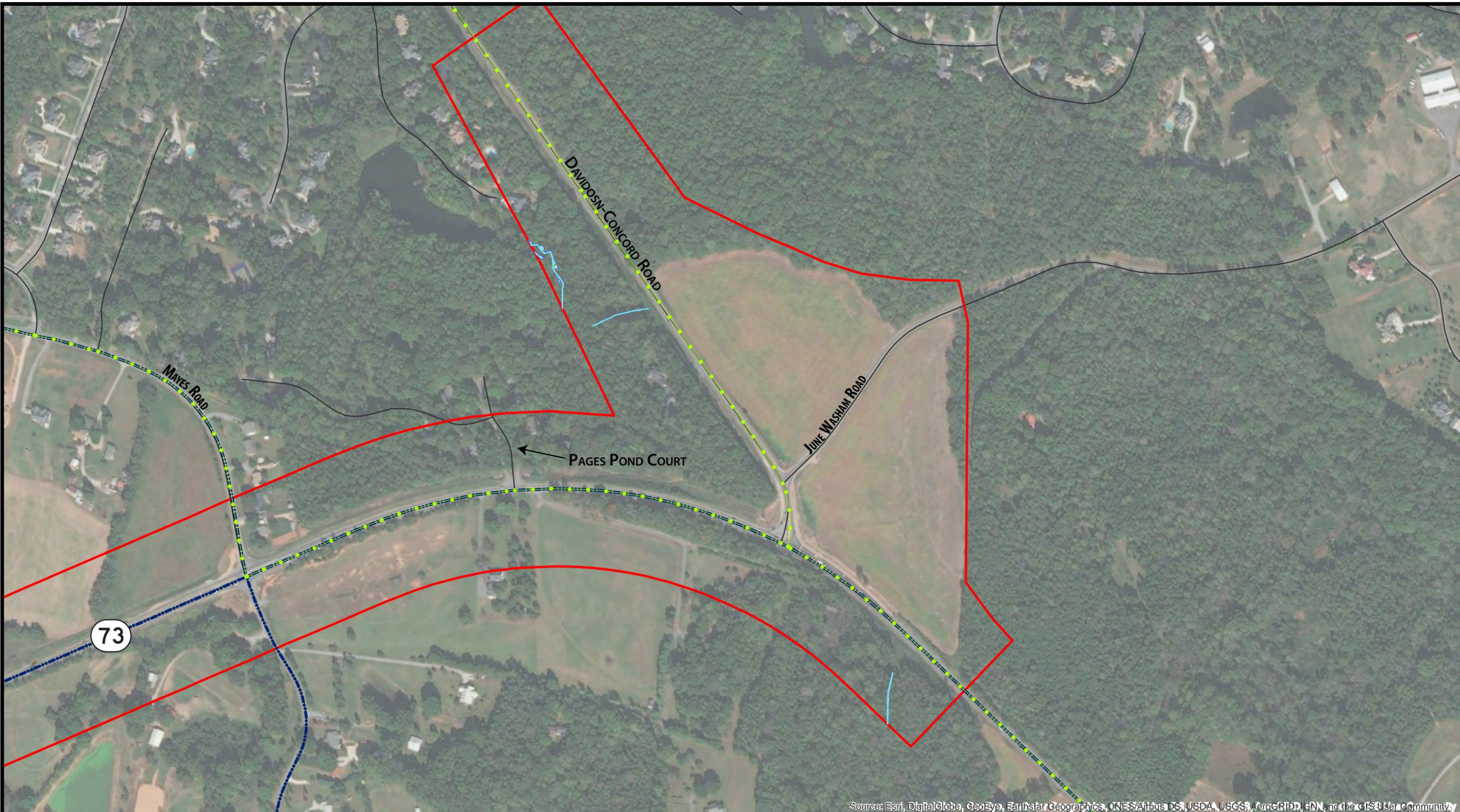
STIP No. R-2632AB | WBS No. 38824.1.2

MECKLENBURG COUNTY

AUGUST 2019

FIGURE 3C

Study Area	Place of Worship	Roads	Streams
Business Locations	Proposed Bikeways	Railroad	Wetlands
Potential HazMat	Proposed Greenways/ Multi-Use Paths	Floodplain	0 220 440 Feet



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



ENVIRONMENTAL FEATURES MAP

STIP No. R-2632AB | WBS No. 38824.1.2

MECKLENBURG COUNTY

AUGUST 2019

FIGURE 3D



Appendix C

EIS RELOCATION REPORT

**North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM**

E.I.S. CORRIDOR DESIGN

WBS ELEMENT:	38824.1.2	COUNTY:	Mecklenburg	Alternate Widen NC 73
T.I.P. No.:	R-2632 AB			
DESCRIPTION OF PROJECT:	NC 73 from NC 115 (Old Statesville Road) to SR 2693 (Davidson-Concord Road) in Mecklenburg County			

ESTIMATED DISPLACEDS					INCOME LEVEL					
Type of Displacees	Owners	Tenants	Total	Minorities	0-15M	15-25M	25-35M	35-50M	50 UP	
Residential	1	0	1	0	0	0	0	0	1	
Businesses	0	0	0	0	VALUE OF DWELLING			DSS DWELLING AVAILABLE		
Farms	0	0	0	0	Owners		Tenants		For Sale For Rent	
Non-Profit	0	0	0	0	0-20M	0	\$ 0-150	0	0-20M	0
					20-40M	0	150-250	0	20-40M	0
					40-70M	0	250-400	0	40-70M	0
					70-100M	0	400-600	0	70-100M	0
					100 UP	1	600 UP	0	100 UP	470
					TOTAL	1		0		470

ANSWER ALL QUESTIONS

Yes	No	Explain all "YES" answers.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1. Will special relocation services be necessary?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2. Will schools or churches be affected by displacement?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. Will business services still be available after project?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. Will relocation cause a housing shortage?
x		6. Source for available housing (list).
<input type="checkbox"/>	<input checked="" type="checkbox"/>	7. Will additional housing programs be needed?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. Should Last Resort Housing be considered?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	9. Are there large, disabled, elderly, etc. families?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	10. Will public housing be needed for project?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	11. Is public housing available?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	12. Is it felt there will be adequate DSS housing available during relocation period?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	13. Will there be a problem of housing within financial means?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	14. Are suitable business sites available (list source).
		15. Number months estimated to complete RELOCATION? 18 to 24 Months

REMARKS (Respond by number)

3. Businesses will remain available as much of the project area is Commercial/Residential.

6. MLS, Newspaper, Realtor, Real Estate Publications & Internet.

8. As required by Law and in accordance with the Uniform Relocation Act.

11. Northern Mecklenburg County has Public Housing.

12. Based on current market, Housing and Storefront Business Locations should be available.

14. MLS, Newspaper, Realtor, Real Estate Publications & Internet

Note: DSS Dwelling Availability was obtained from "Realtor.com" for Huntersville, Mecklenburg County as the one Relocatee is located in Huntersville.

<p>Right of Way Agent</p>	<p>3/22/19</p> <p>Date</p>	<p>Relocation Coordinator</p>	<p>03/22/2019</p> <p>Date</p>
---------------------------	----------------------------	-------------------------------	-------------------------------

Appendix D

17-08-0014



HISTORIC ARCHITECTURE AND LANDSCAPES NO HISTORIC PROPERTIES PRESENT OR AFFECTED FORM

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

PROJECT INFORMATION

Project No.:	R-2632AB	County:	Mecklenburg
WBS No.:	38824.1.2	Document Type:	CE
Fed. Aid No.:	STP-0073(047)	Funding:	<input type="checkbox"/> State <input checked="" type="checkbox"/> Federal
Federal Permit(s):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Permit Type(s):	USACE
<u>Project Description:</u> Widen NC 73 (Sam Furr Rd) from east of NC 115 to SR 2693 (Davidson-Concord Rd).			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

- There are no National Register-listed or Study Listed properties within the project's area of potential effects.
- There are no properties less than fifty years old which are considered to meet Criteria Consideration G within the project's area of potential effects.
- There are no properties within the project's area of potential effects.
- There are properties over fifty years old within the area of potential effects, but they do not meet the criteria for listing on the National Register.
- There are no historic properties present or affected by this project. (Attach any notes or documents as needed.)

Date of field visit: n/a

Description of review activities, results, and conclusions:

Review of HPO quad maps, relevant background reports, historic designations roster, and indexes was undertaken on September 5, 2017. Based on this review there are no NR, DE, LL, or SL in the Area of Potential Effects (APE). There are two previously evaluated properties in the APE: a house numbered MK2446, and the William and Kate Mayes House (MK2448). Both of these houses were determined ineligible for National Register listing in 2007 and appear not to have gained new significance since then. Two other houses, one built around 1945, the other built 1965, do not meet minimum criteria for National register consideration. No survey required. In November 2018 the study area was expanded. There is one property over 50 years of age in the expanded area. This c. 1920 house is in an abandoned state. It is set facing NC 115. The house appears to have been part of a farmstead at one point with evidence of outbuilding; however, there is no longer farmland associated with this property. The proposed widening of NC 73 will impact a portion of the parcel but not any of the buildings. No historic properties affected.

SUPPORT DOCUMENTATION

Map(s) Previous Survey Info. Photos Correspondence Design Plans

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes – **NO HISTORIC PROPERTIES PRESENT OR AFFECTED**

Stelby Reap
NCDOT Architectural Historian

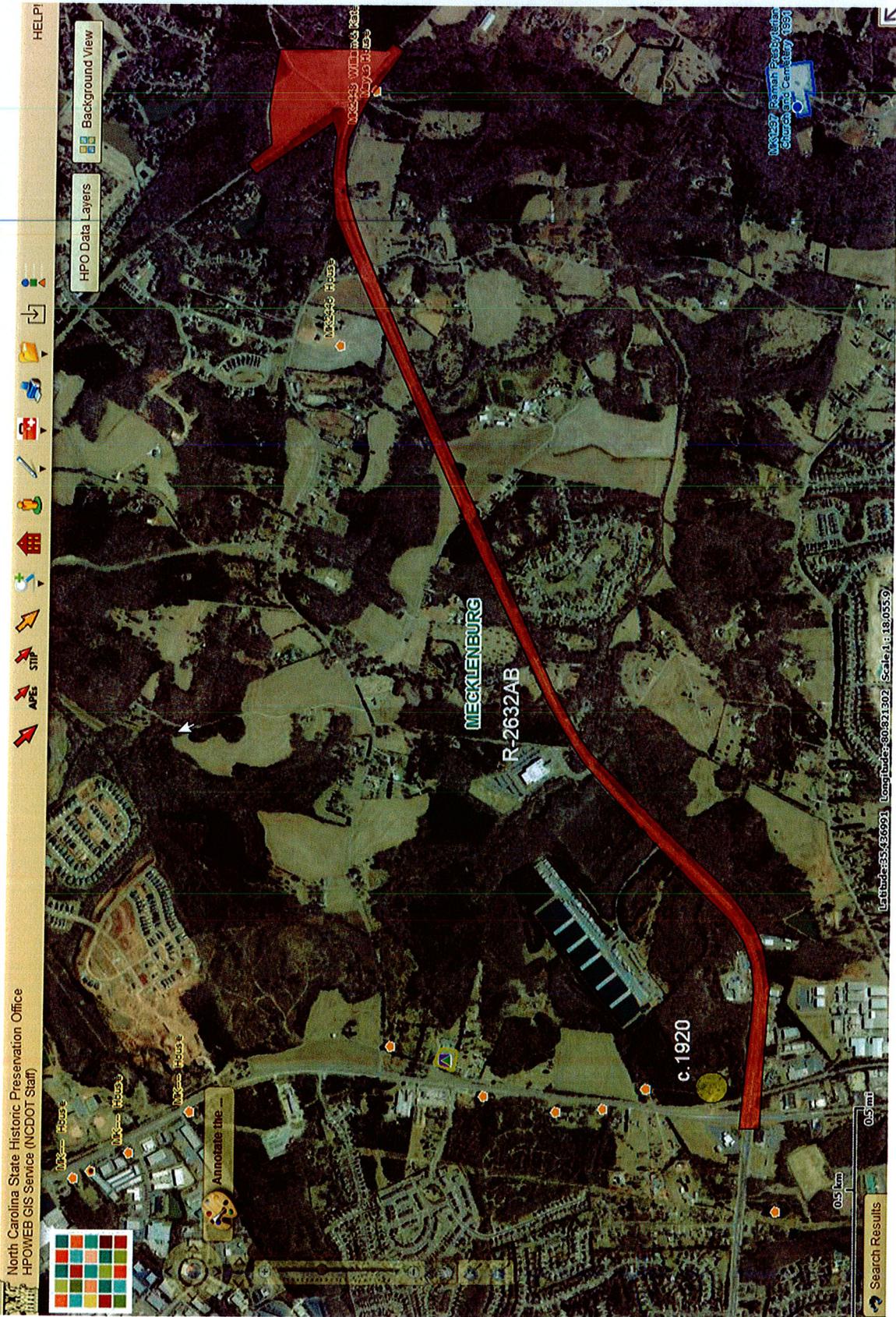
March 6, 2019
Date



c.1920 house



c. 1920 house in association with the site of the widening



17-08-0014**NO ARCHAEOLOGICAL SURVEY REQUIRED FORM**

This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Group.

**PROJECT INFORMATION**

Project No: **R-2632AB** *County:* **Mecklenburg**
WBS No: **38824.3.2** *Document:* **Federal CE**
F.A. No: **STP-0073(047)** *Funding:* State Federal

Federal Permit Required? Yes No *Permit Type:* **Not Specified**

Project Description: NCDOT's Division 10 proposes to widen NC 73 (Sam Furr Road) from a two-lane undivided facility to a four-lane divided facility, from just east of NC 115 to SR 2693 (Davidson-Concord Road) in Mecklenburg County. The Study Area will be centered along NC 73 measures approximately 2.67 miles long by 600 feet wide. Overall, the Study Area will encompass about 191.8 acres, inclusive of the existing roadway and any development.

SUMMARY OF CULTURAL RESOURCES REVIEW***Brief description of review activities, results of review, and conclusions:***

This project was accepted on Friday, August 25, 2017. A map review and site file search was conducted at the Office of State Archaeology (OSA) on Monday, August 28, 2017. An archaeological survey has already been conducted along this stretch of NC 73 (Sam Furr Road) (see TIP# R-2632), with thirteen (13) archaeological sites having been recorded within a one (1) mile radius of the project area. Digital copies of HPO's maps (Cornelius Quadrangle) as well as the HPOWEB GIS Service (<http://gis.ncdcr.gov/hpoweb/>) were last reviewed on Wednesday, September 6, 2017. There are two (2) known historic architectural resources (MK2446 and MK2448 [William & Kate Mayes House]) located within or adjacent to the Study Area; however, intact archaeological deposits associated with these resources would not be anticipated within the footprint of the proposed project. In addition, topographic maps, historic maps (NCMaps website), USDA soil survey maps, and aerial photographs were utilized and inspected to gauge environmental factors that may have contributed to historic or prehistoric settlement within the project limits, and to assess the level of modern, slope, agricultural, hydrological, and other erosive-type disturbances within and surrounding the archaeological APE.

Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:

This is a Federally funded project that may require a Federal permit. Permanent and/or temporary utility and/or drainage easements as well as additional ROW will also be necessary. The size and shape of the Study Area have been drawn in a way to capture any possible impacts beyond the NCDOT's existing 100-foot ROW along NC 73. At this time, we are in compliance with NC GS 121-12a, since there are no eligible (i.e. National Register-listed) archaeological resources located within the project's Study Area that would require our attention. However, there is an archaeological site (31MK594/594**) located at the corner of SR 2693 (Davidson-Concord Road) and June Washam Road that is listed as "Unassessed" in the Office of State Archaeology's (OSA) database system. Further evaluations of the site's assemblage and discussions with a representative of OSA suggest a lack of overall stratigraphic integrity, with a

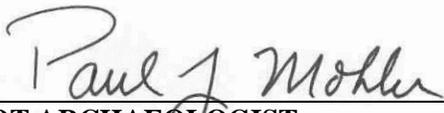
17-08-0014

majority of historic materials recovered from the surface. Based on the description of the proposed project, activities will take place beyond the NCDOT's existing ROW along NC 73 but will most likely avoid the location of Site 31MK594/594**. From an environmental perspective, the Study Area falls within a sparsely populated agricultural/wooded area north of Charlotte in the Piedmont physiographic region of North Carolina. The Study Area is composed of numerous soil types, most of which are severely eroded and/or have been impacted by modern development (e.g. Cecil sandy clay loam, 2-8% slopes, eroded [CeB2] and Cecil sandy clay loam, 8-15% slopes, eroded [CeD2]). Although small pockets of nearly level, moderately well-drained soils are present, the preservation of intact archaeological resources would not be anticipated under such environmental conditions. The Office of State Archaeology (OSA) has reviewed several projects within the vicinity of NC 73 for environmental compliance, including utility upgrades (ER 13-2625), mitigation sites (ER 17-0777), and the initial proposed widening of the road itself (ER 07-0265). Archaeological surveys were called for in areas of known historic properties and favorable topographical situations; however, intensive survey work avoided areas of sloping and eroded terrain and frequently flooded soils. More importantly though, the NC 73 corridor as well as the intersection of SR 1693 (Davidson-Concord Road) and June Washam Road have already been subjected to archaeological investigations (see TIP# R-2632A [Gosser et al. 2007] and TIP# R-2632 [Abbott 1991]). Within five (5) miles of the Study Area, NCDOT's Archaeology Group has reviewed various transportation-related projects for environmental compliance under the Programmatic Agreement (PA) with the State Historic Preservation Office (NC-HPO). Based on the limited nature and scopes of those projects, archaeological surveys were not recommended. Despite a wider Study Area than previously surveyed, additional archaeological investigations are not deemed necessary; consultation with a representative of OSA was held on Monday, August 28, 2017 to further validate such a recommendation. Based on the results of the previous surveys, there is a low probability for significant prehistoric and/or historic archaeological materials to be present. Therefore, it is believed that the current Study Area, as depicted, is unlikely to contain intact and significant archaeological resources. No archaeological survey is required for this project. If design plans change or are made available prior to construction, then additional consultation regarding archaeology will be required. At this time, no further archaeological work is recommended. If archaeological materials are uncovered during project activities, then such resources will be dealt with according to the procedures set forth for "unanticipated discoveries," to include notification of NCDOT's Archaeology Group.

SUPPORT DOCUMENTATION

See attached: Map(s) Previous Survey Info Photos Correspondence
 Photocopy of County Survey Notes Other:

FINDING BY NCDOT ARCHAEOLOGISTNO ARCHAEOLOGY SURVEY REQUIRED



 NCDOT ARCHAEOLOGIST

September 6, 2017

Date

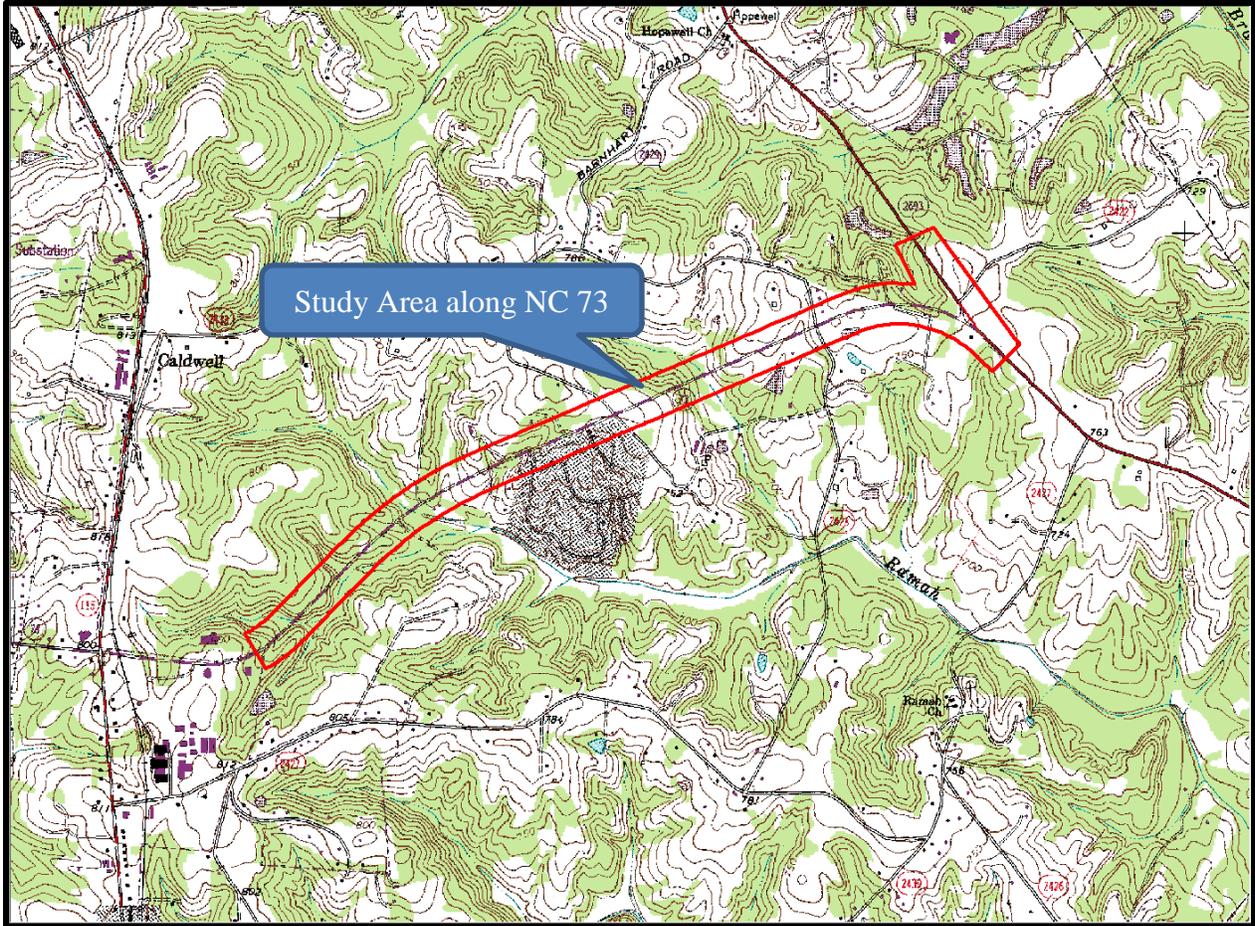
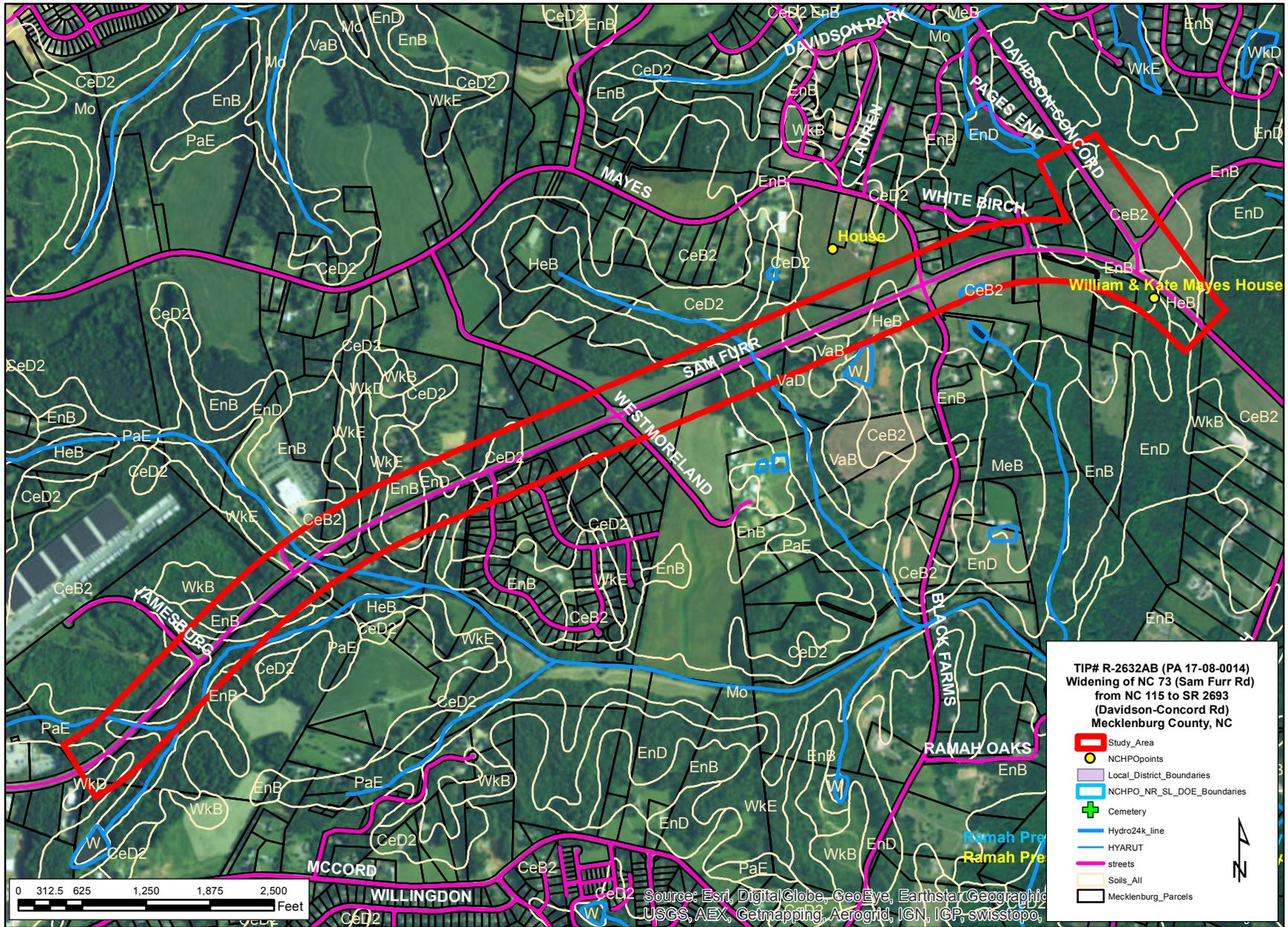


Figure 1: Cornelius, NC (USGS 1993).



Map labels include: DAVIDSON PARK, PAGES END, DAVIDSON CONCORD, MAYES, WHITE BIRCH, SAM FURR, WESTMORELAND, BLACK FARMS, RAMAH OAKS, JAMESBURG, MCCORD, WILLINGTON, House, William & Kate Mayes House, Ramah Pre, Ramah Pre.

17-08-0014**NO ARCHAEOLOGICAL SURVEY REQUIRED FORM**

This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Group.

**PROJECT INFORMATION**

Project No.: **R-2632AB (RESUBMIT)** *County:* **Mecklenburg**
WBS No.: **38824.3.2** *Document:* **Federal CE**
F.A. No.: **STP-0073(047)** *Funding:* State Federal

Federal Permit Required? Yes No *Permit Type:* **Not Specified**

Project Description: NCDOT's Division 10 proposes to widen NC 73 (Sam Furr Road) from a two-lane undivided facility to a four-lane divided facility, from just east of NC 115 to SR 2693 (Davidson-Concord Road) in Mecklenburg County. The Study Area will be centered along NC 73 and measures about 2.67 miles long by 600 feet wide. Overall, the Study Area will encompass about 191.8 acres, inclusive of the existing roadway and any development. **Since the initial submittal and review of this project, the Study Area has been expanded to include three (3) additional areas, totaling 61.4 acres. These areas include: 1) an extension of the Study Area west to the intersection of Old Statesville Road and NC 73 (36.4 acres), 2) an extension of the Study Area north along Davidson-Concord Road (11.8 acres), and 3) a triangular extension encompassing June Washam Road (13.2 acres). This form only covers the proposed expansion areas for the Study Area and will serve as an addendum to the original PA form completed in September 2017.**

SUMMARY OF CULTURAL RESOURCES REVIEW***Brief description of review activities, results of review, and conclusions:***

The review for the expanded Study Area was accepted on Thursday, December 13, 2018. Based on the previous review and background search conducted for the initial submittal of this project, an additional map review and site file search at the Office of State Archaeology (OSA) was deemed not necessary. As noted before, an archaeological survey has already been conducted along NC 73 (Sam Furr Road) from its intersection with Old Statesville Road to its intersection with Davidson-Concord Road (see TIP# R-2632). In addition, thirteen (13) archaeological sites have been recorded within a one (1) mile radius of the project area, with two of those sites (31MK594 and 31MK609) located in the expanded Study Area around June Washam Road. Digital copies of HPO's maps (Cornelius Quadrangle) as well as the HPOWEB GIS Service (<http://gis.ncdcr.gov/hpweb/>) were again reviewed on Friday, December 14, 2018. There are no known historic architectural resources located within or adjacent to the expanded Study Area locations for which intact archaeological deposits would be anticipated within the footprint of the proposed project. In addition, topographic maps, historic maps (NCMaps website), USDA soil survey maps, and aerial photographs were utilized and inspected to gauge environmental factors that may have contributed to historic or prehistoric settlement within the project limits, and to assess the level of modern, slope, agricultural, hydrological, and other erosive-type disturbances within and surrounding the expanded Study Area.

17-08-0014

Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:

This is still a Federally funded project that may require a Federal permit. Permanent and/or temporary utility and/or drainage easements as well as additional ROW will still be necessary. The size and shape of the expanded Study Area locations have been drawn in a way to capture any possible impacts beyond the NCDOT's existing ROW. At this time, we are in compliance with NC GS 121-12a, since there are no eligible (i.e. National Register-listed) archaeological resources located within the project's expanded Study Area that would require our attention. However, there are two (2) archaeological sites (Site 31MK594 located at the corner of Davidson-Concord Road and June Washam Road and Site 31MK609 located about 750 feet east of that same intersection) now fully encompassed by the expanded Study Area. Site 31MK594 was listed as "Unassessed" in the Office of State Archaeology's (OSA) database system; however, further evaluation of the site's assemblage and discussions with a representative of OSA suggest a lack of overall stratigraphic integrity, with a majority of historic materials recovered from the surface. Site 31MK609 has been categorized as a prehistoric isolated find within a rather large area (11 acres) with good surface visibility. From an environmental perspective, the expanded Study Area locations consist of small developed parcels as well as agricultural/wooded terrain, all within the Southern Piedmont physiographic region of North Carolina. Similar to the overall Study Area, the areas of expansion consist of numerous soil types, most of which are severely eroded, sloped, or have been impacted by modern development (e.g. Cecil sandy clay loam, 2-8% slopes, eroded [CeB2], Cecil sandy clay loam, 8-15% slopes, eroded [CeD2], and Wilkes loam, 15-25% slopes [WkE]). OSA has not reviewed any additional projects within the vicinity of NC 73 for environmental compliance since its initial review. Those projects included utility upgrades (ER 13-2625), mitigation sites (ER 17-0777), and the initial proposed widening of NC 73 itself (ER 07-0265). Archaeological surveys were recommended for areas with known historic properties and favorable topographical situations; however, intensive survey work avoided areas of sloping and eroded terrain and frequently flooded soils. More importantly though, the NC 73 corridor as well as the intersection of SR 1693 (Davidson-Concord Road) and June Washam Road have already been subjected to archaeological investigations (see TIP# R-2632A [Gosser et al. 2007] and TIP# R-2632 [Abbott 1991]), covering most, if not all, of the expanded Study Area locations.

Within five (5) miles of the Study Area, NCDOT's Archaeology Group has reviewed numerous transportation-related projects for environmental compliance under the Programmatic Agreement (PA) with the State Historic Preservation Office (NC-HPO). Based on the limited nature and scopes of most of these projects (i.e. within existing ROW), archaeological surveys were not recommended. Archaeological surveys, however, were recommended and conducted for other stretches of NC 73 slated for widening (i.e. TIP# R-5706A [PA 17-09-0005] and TIP# R-5706B [PA 17-09-0006]). While archaeological sites were documented along the NC 73 corridor, none was deemed eligible for the NRHP. Although the Study Area has expanded, additional archaeological investigations are still not deemed necessary. For the previous review of this project, consultation with a representative of OSA was held on Monday, August 28, 2017 to validate the original "no survey" recommendation based on the conditions of the archaeological sites and artifact assemblage data. Such a recommendation should still hold true despite the presence of the two (2) archaeological sites near the intersection of Davidson-Concord Road and June Washam Road. Based on the results of previous surveys in and adjacent to the expanded Study Area, there should still be a low probability for significant prehistoric and/or historic archaeological materials to be present. Therefore, it is believed that the current expanded Study Area, as depicted, is unlikely to contain intact and significant archaeological resources. No archaeological survey is required for this project. If design plans change or are made available prior to construction, then additional consultation regarding archaeology will be required. At this time, no further archaeological work is recommended. If archaeological materials are uncovered during project activities, then such resources will be dealt with according to the procedures set forth for "unanticipated discoveries," to include notification of NCDOT's Archaeology Group.

17-08-0014

SUPPORT DOCUMENTATION

See attached: Map(s) Previous Survey Info Photos Correspondence
 Photocopy of County Survey Notes Other:

FINDING BY NCDOT ARCHAEOLOGIST

NO ARCHAEOLOGY SURVEY REQUIRED

Paul J Mohler
NCDOT ARCHAEOLOGIST

December 17, 2018

Date

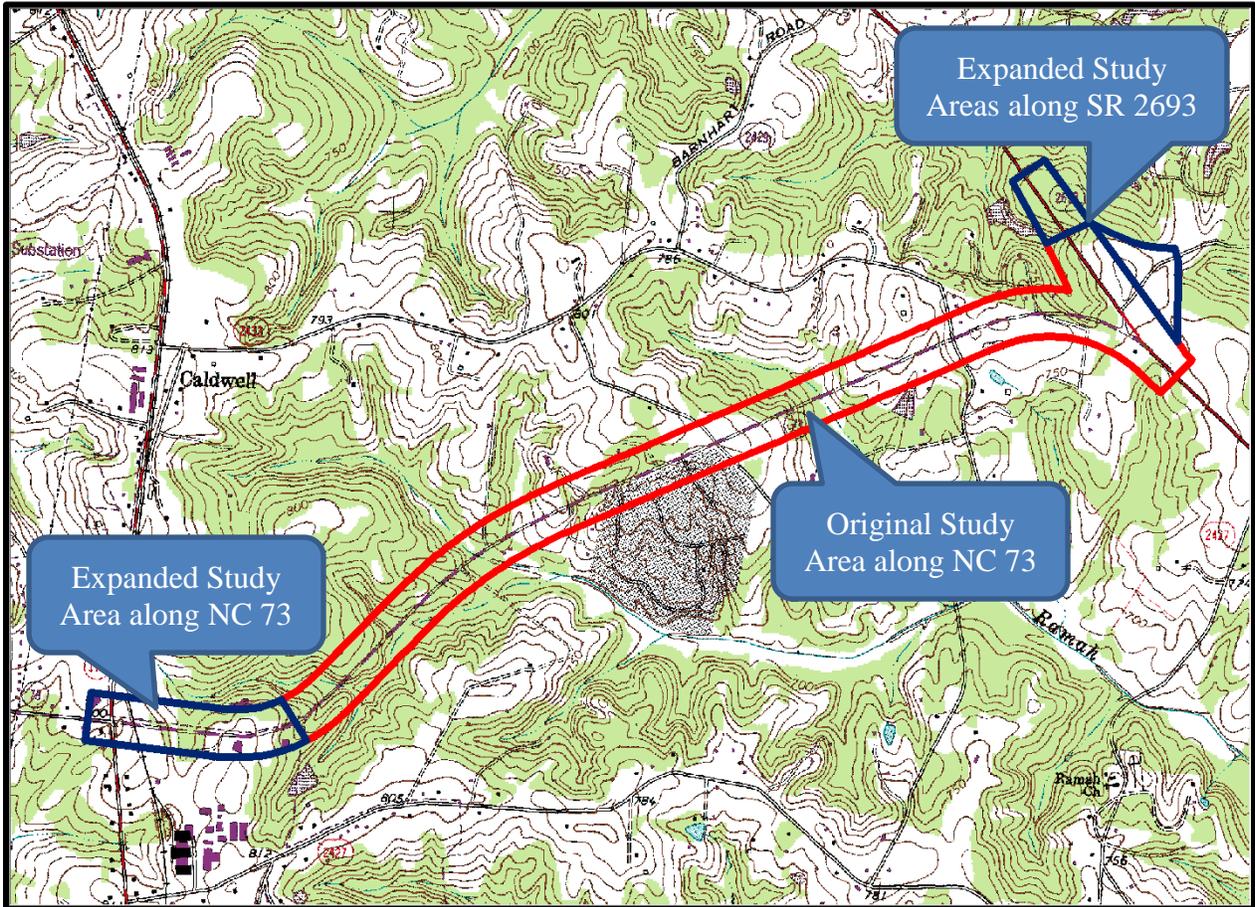
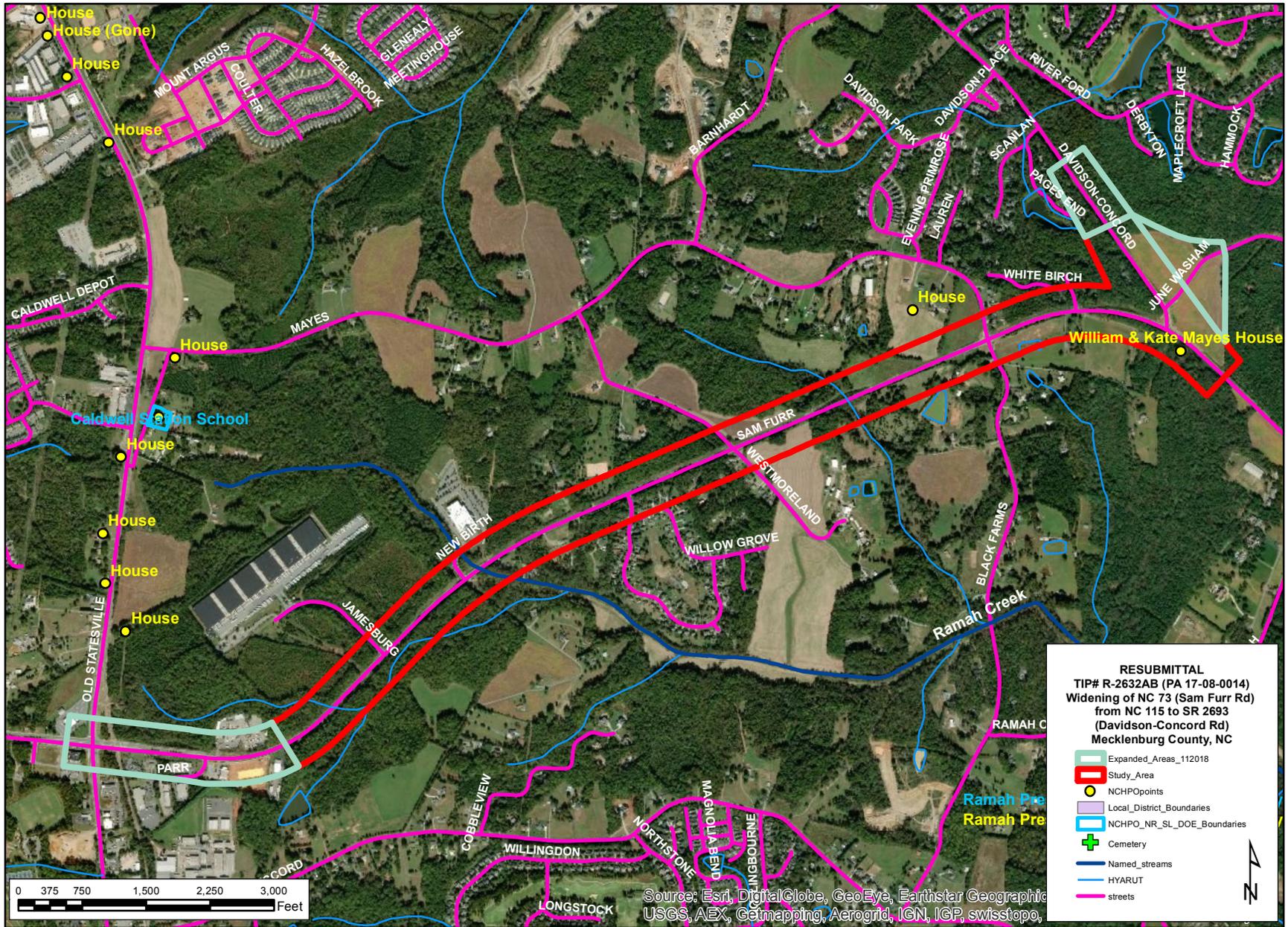


Figure 1: Cornelius, NC (USGS 1993).





STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

July 17, 2017

TO: Bill Barrett, Environmental Program Consultant
Environmental Coordination & Permitting Group - Western Region, EAU

CC: Tracy Walter, Project Engineer
Project Development Unit

FROM: Chris Manley, Environmental Program Consultant
Biological Surveys Group, EAU

SUBJECT: *Streamline Section 7 Consultation for the Northern Long-Eared Bat* associated with improvements to NC 73 from I-77 to US 21 and NC 115 to SR 2693 (Davidson-Concord Road) in Mecklenburg County, **TIP No. R-2632 AB.**

The North Carolina Department of Transportation (NCDOT, Division 10) proposes to improve to NC 73 from I-77 to US 21 and NC 115 to SR 2693, in Mecklenburg County, TIP No. R-2632 AB.

The project has been reviewed for effects on the northern long-eared bat (NLEB). As of May 4, 2015, NLEB is listed by the U.S. Fish and Wildlife Service (USFWS) as "Threatened" under the Endangered Species Act of 1973. As of July 17, 2017, NLEB is listed by USFWS (http://www.fws.gov/raleigh/species/cntylist/nc_counties.html) as "Probable/Potential" in Cabarrus County. USFWS also established a final rule under the authority of section 4(d) of the Endangered Species Act that provides measures for the conservation of NLEB. The USFWS has tailored the final 4(d) rule to prohibit the take of NLEB from certain activities within areas where they are in decline. This incidental take protection applies only to known NLEB occupied maternity roost trees and known NLEB hibernacula. Effective February 16, 2016, incidental take resulting from tree removal is prohibited if it 1) occurs within a ¼ mile radius of known NLEB hibernacula; or 2) cuts or destroys known occupied maternity roost trees, or any other trees within a 150-foot radius from the known maternity tree during the pup season (June 1-July 31).

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS UNIT
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1598

TELEPHONE: 919-707-6000
FAX: 919-212-5785
WEBSITE: NCDOT.GOV

Location:
CENTURY CENTER, BUILDING B
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610

According to the North Carolina Natural Heritage Program (NHP) Biotics Database, most recently updated April 2017, **the nearest NLEB hibernacula record is 75 miles northwest of the project (EO ID 34299) and no known NLEB roost trees occur within 150 feet of the project area.** EO 34299 represents the Linville siterns site with multiple observations from 2001 to 2009.

NCDOT has also reviewed the USFWS Asheville Field office website (http://www.fws.gov/asheville/htmls/project_review/NLEB_in_WNC.html) for consistency with NHP records. This project is located entirely outside of the red highlighted areas (12-digit HUC) that the USFWS Asheville Field Office has determined to be representative of an area that may require consultation.

For the proposed action, NCDOT has committed to the conservation measures listed below:

- 1) No alterations of a known hibernaculum's entrance or interior environment if it impairs an essential behavioral pattern, including sheltering northern long-eared bats (January 1 through December 31);
- 2) No tree removal within a 0.25 mile radius of a known hibernacula (January 1 through December 31); and
- 3) No cutting or destroying a known, occupied maternity roost tree, or any other trees within a 150-foot radius from the known, occupied maternity tree during the period from June 1 through and including July 31.

NCDOT has determined that the proposed action does not require separate consultation on the grounds that the proposed action is consistent with the final Section 4(d) rule, codified at 50 C.F.R. § 17.40(o) and effective February 16, 2016. NCDOT may presume its determination is informed by best available information and consider Section 7 responsibilities fulfilled for NLEB.

If you need any additional information, please contact Chris Manley at 919-707-6135.



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

September 6, 2018

Memorandum to: Bill Barrett, Environmental Senior Specialist
EAU, Environmental Coordination and Permitting Group

From: Matt Haney, Environmental Senior Specialist
EAU, Biological Surveys Group

Subject: Freshwater Mussel Survey Report for the Proposed
Widening of NC 73 from east of NC 115 to SR 2693
(Davidson-Concord Rd), Mecklenburg County. TIP # R-
2632AB. WBS # 38824.1.2.

The North Carolina Department of Transportation proposes to widen NC 73 from east of NC 115 to SR 2693 (Davidson-Concord Rd) in Mecklenburg County. This project crosses Ramah Creek and several unnamed tributaries (UT) to Ramah Creek, which are in the Yadkin-Pee Dee River Basin. From the project, Ramah Creek flows approximately 5.1 river miles until converging with Clarke Creek. The federally endangered Carolina Heelsplitter (*Lasmigona decorata*) is listed by the U.S. Fish and Wildlife Service (USFWS) as potentially occurring in Mecklenburg County.

The Carolina Heelsplitter was historically known from several locations within the Catawba and Yadkin-Pee Dee River systems in North Carolina. The species is now known only from a handful of streams in these systems. The species exists in very low abundances, usually within 6 feet of shorelines, throughout its known range. The general habitat requirements for the Carolina Heelsplitter are shaded areas in large rivers to small streams, often burrowed into clay banks between the root systems of trees, or in runs along steep banks with moderate current. The more recent habitat where the Carolina Heelsplitter has been found is in sections of streams containing bedrock with perpendicular crevices filled with sand and gravel, and with wide riparian buffers.

Ramah Creek is not classified as a 303d stream. The closest NPDES facility (Willowbrook Subdivision WWTP, Permit No. NC0073539) is approximately 0.6 river mile downstream from this project along Ramah Creek.

Prior to conducting a habitat assessment, a review of the NC Natural Heritage Program database was conducted (January 24, 2018) to determine if there were any records of rare mussels within the proposed project study area or receiving waters. **This review indicated that there are no known occurrences of Carolina Heelsplitter in**

Ramah Creek. The closest known occurrence of Carolina Heelsplitter is over 31 river miles away in Goose Creek (EO ID 21454, found in 1996).

Habitat assessments of Ramah Creek and its UT's were conducted by NCDOT biologists Jared Gray (Permit No. 18-ES00314) and Matt Haney on January 25, 2018. Ramah Creek was approximately 1-3 ft. wide. The depth ranged from 1-6 in. The streambanks were approximately 1.5-5 ft. high and exhibited signs of erosion. The substrate consisted of sand and gravel.

The UT's to Ramah Creek ranged in width from 1-4 ft. The depth of these UT's ranged from 1-8 in. The streambanks for these UT's ranged from 1.5-19.5 ft. high and exhibited signs of channelization, severe erosion and incision. The substrates for these UT's consisted of sand, silt, clay and gravel. The riparian buffer width for these UT's ranged from narrow to wide. No live mussels or mussel shells were observed during the habitat assessment. Furthermore, none of the waterbodies crossed by this project provide habitat for Carolina Heelsplitter.

Due to the distance to known records of Carolina Heelsplitter, degraded habitat in Ramah Creek and its UT's, and no target species being found during the habitat assessment, this project will have no effect on this species.

Biological Conclusion for Carolina Heelsplitter: No Effect



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JAMES H. TROGDON, III
SECRETARY

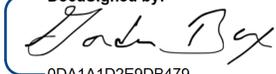
4/1/2019

MEMORANDUM TO: Teresa Ellerby, Project Manager, Project Management Team --
Divisions 11, 12, 13, & 14

FROM: Gordon Box, PG
GeoEnvironmental Project Manager
GeoEnvironmental Section
Geotechnical Engineering Unit

TIP NO: R-2632AB
WBS: 38824.1.2
COUNTY: MECKLENBURG
DIVISION 10
DESCRIPTION: NC 73 FROM NC 115 TO SR 2693 (DAVIDSON-CONCORD ROAD)

SUBJECT: **GeoEnvironmental Phase I Report**

DocuSigned by:

0DA1A1D2E9DB479...

The GeoEnvironmental Section of the Geotechnical Engineering Unit performed a Phase I field investigation on March 20, 2019 for the above referenced project to identify geoenvironmental sites of concern. The purpose of this report is to document sites of concern within the project study area that are or may be contaminated. These sites of concern should be included in the environmental planning document in an effort to assist the project stakeholders in reducing or avoiding impacts to these sites. Sites of concern may include, but are not limited to, underground storage tank (UST) sites, dry cleaning facilities, hazardous waste sites, regulated landfills and unregulated dumpsites.

Findings

One (1) site of concern were identified within the proposed study area. We anticipate low monetary and scheduling impacts resulting from these sites. See the following table and figure for details.

Please note that discovery of additional sites not recorded by regulatory agencies and not reasonably discernible during the project reconnaissance may occur. The GeoEnvironmental Section should be notified immediately after discovery of such sites so their potential impact(s) may be assessed.

Sites of concern identified in this report should be reviewed by the GeoEnvironmental Section once the Final Right of Way plans are complete to determine if Phase II Investigations and Right of Way Recommendations are necessary prior to right of way being acquired.

If there are questions regarding the geoenvironmental issues, please contact me, at (919) 707-6859.

cc:

John Pilipchuk, LG, PE, State Geotechnical Engineer

Brian Hanks, PE, State Structures Engineer

Dale Burton, PE, PLS, State Locations and Surveys Engineer

Carl Barclay, PE, State Utilities Manager

Rick Baucom, PE, Division Construction Engineer

Kenny Hill, Division Right of Way Agent

Eric Williams, PE, Geotechnical Regional Manager

Kevin Miller, PG, Regional Geological Engineer

Steve Grimes, ROW Unit, Negotiations, State Negotiator

row-notify@ncdot.gov

roadwaydesign@ncdot.gov

hydraulics_notify@ncdot.gov

[File](#)

(01) Property Name:
RV Boat and Storage of Lake Norman/Action
Cleanup and Restoration
11235 Sam Furr Rd
Huntersville, NC

Property Owner:
DONCO PROPERTIES LLC
11235 SAM FURR RD SUITE 101
Huntersville, NC

UST Owner:
NA

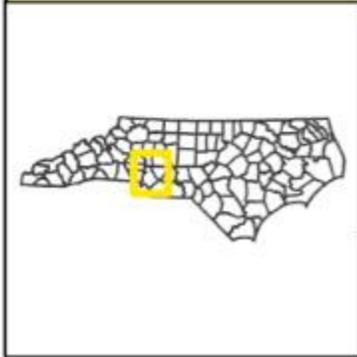
Facility ID: NA
Incident Type/Number: NA
UST Number: NA



Anticipated Impacts: Low

This parcel is the site of an RV service center and restoration facility located along the northern side of Sam Furr Rd. Chemicals and fueling are presumably in use.

Appendix A
Location of GeoEnvironmental Sites of Concern

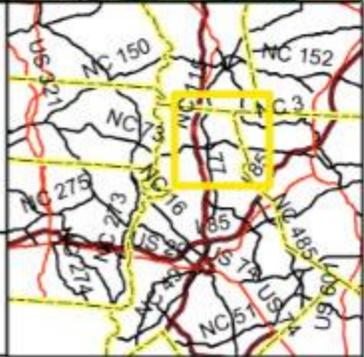


Project 38824.1.2 (TIP # R-2632AB)
NC 73 Widening from NC 115 (Old Statesville Rd.)
to SR 2693 (Davidson-Concord Rd.)
Mecklenburg County

2,600 1,300 0 2,600 Feet

N

NC Department of Transportation
Geotechnical Engineering Unit
GeoEnvironmental Section





STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

Memorandum

To: Meeting Attendees

From: Tracy Walter – NCDOT

Date: August 24, 2017

Subject: NC 73 Widening from NC 115 to Davidson-Concord Road in Mecklenburg County (R-2632AB) and NC 73 Widening from Davidson-Concord Road to US 29 in Mecklenburg and Cabarrus Counties (R-5706)

An Internal Scoping meeting was held for the subject projects on August 8, 2017 at 10:00 AM in the PDEA Large Conference Room at the NCDOT Century Center. Meeting attendees are listed below and a summary of the meeting follows.

Tracy Walter	NCDOT Central Project Delivery
Pat Tuttle	NCDOT – Location and Surveys
Kevin Moore	NCDOT – Central Project Delivery
Missy Pair	NCDOT – Noise and Air
Laura Sutton	NCDOT – Central Project Delivery
Brian Lopez	NCDOT – Bicycle and Pedestrian
Bill Zerman	NCDOT – Central Project Delivery
Matthew York	NCDOT – Hydraulics
Bryan Lopez	NCDOT – Bicycle and Pedestrian
Herman Huang	NCDOT – Community Studies
Jim Harris	NCDOT – Rail
Carla Dagnino	NCDOT – Environmental Analysis
Bill Barrett	NCDOT – Environmental Analysis
Jim Mason	NCDOT – Environmental Analysis
Stuart Basham*	NCDOT – Division 10
Loretta Barren*	FHWA
Andy Bailey	NCDOT CRTPO (TPB)
Reuben Crummy	NCDOT CRMPO (TPB)
Nicole Bennett	WSP
Brock Laforty	WSP
Adam Karagosian	WSP
Jennifer Starnes	WSP
Jason Gorrie*	WSP

Charles Heafner*	WSP
Katharine Mather*	WSP
Sandy Smith	Axiom
Allison Keith	Axiom

**via telephone*

Tracy Walter opened the meeting, gave a brief description of the project, and asked for introductions. He then handed the meeting off to WSP to present the PowerPoint slides (attached). The main points of the PowerPoint include:

- Project History
- Project Descriptions
- Existing Conditions
- Human Environment Information
- Natural Environment Information
- Draft Purpose and Need
 - The Purpose and Need for each project has not been finalized since the traffic forecasts have not been completed to date. The following statement for each project was presented at the meeting, with the yellow highlighted sections indicating missing traffic information.
 - § The Charlotte Regional Transportation Organization's and Cabarrus-Rowan Metropolitan Transportation Organization's Transportation Plans articulate a desire for NC 73 to operate at Level of Service (LOS) D or better. The projected traffic volume for 2040 is projected to exceed the capacity of the roadway and operate at LOS F. NC 73 is currently (2016) operating at LOS D and is projected to operate at LOS F in 2040. On average, drivers experience 45.1 seconds of delay during the morning peak and 46.6 seconds of delay during the afternoon peak. This delay is projected to increase to 202.2 seconds of delay during the morning peak and 209.5 seconds of delay during the afternoon peak by 2040.
 - § The purpose of the project is to reduce congestion and improve traffic operations along NC 73 by achieving at least a LOS D by the project design year. Another desirable outcome is to enhance pedestrian and bicycle mobility.
- Tentative Project Schedule
- Individual Units Input

During the presentation, it was decided to use the new Board of Transportation approved 2018-2027 STIP to determine the ROW and LET schedules for both of these projects rather than the Live STIP which was used for the PowerPoint presentation. The BOT approved STIP designates both projects to have schedule for ROW in 2020 and LET in 2022.

After the presentation for each project, representatives who were present from each of the units provided comments:

R-2632AB

FHWA

- There was a discussion as to whether consultation would be the appropriate approach to satisfy NEPA rather than a new Categorical Exclusion since the 2009 CE for R-2632 also included evaluation of R-2632AB. It was subsequently determined that following the new CE process is acceptable.

Division 10

- No comment.

Central Project Delivery

- Recommended a divided section with a 30-foot wide raised median or 46-foot depressed media
- A 55 mph design speed can be used with a shoulder section and raised median.
- A 45 mph design speed must be used if the design includes curb and gutter and not a shoulder section.

Noise and Air

- WSP is scoped to do the Traffic Noise analysis. A Draft Work Plan must be submitted.
- The Noise Policy is different for state funded project vs. federally funded projects.
- Standard Air Quality statement to be included.

Community Studies

- No comment

Natural Environment

- Carla asked if and when a merger meeting would be conducted. Merger Team coordination would occur for R-2632AB after the External Scoping Meeting which has not yet been scheduled.

Bicycle and Pedestrian

- Bike and Ped typically recommends a multi-use side path for this type of project but plans to consult with the Towns and CRTPO before making a recommendation.

Location and Survey

- Mapping for the project has been requested.

Rail

- Recommended matching the section from R-2632AA and strongly suggested not touching the rail immediately west of R-2632AB (just east of NC 115)

CRTPO

- The CRTPO Comprehensive Transportation Plan was adopted in March 2017.
- The NC 73 team comprised of the towns, the Division, CRTPO and CRMPO meets quarterly. It was recommended that they be contacted regarding both R-2632AB and R-5706.
- The NC 73 team has been discussing interim improvements for the NC 73 corridor.

CRMPO

- The Cabarrus-Rowan MPO Comprehensive Transportation Plan was adopted in March 2017.

R-5706

FHWA

- No comment.

Division 10

- No comment.

Central Project Delivery

- Same recommendation as for R-2632AB (55 mph design speed, shoulder section with 30 ft. raised median or 46 ft. depressed median).

Noise and Air

- WSP is not currently scoped to do the Traffic Noise and Air Quality analyses. These tasks will be included as part of WSP's next task order, which will also include functional/preliminary design and SEPA EA preparation.
- Standard Air Quality statement to be included.

Community Studies

- No comment

Natural Environment

- Jim Mason pointed out that the Environmental Constraints Map presented during the meeting has a different project study area than the study area included in the NRTR. The NRTR includes a refined project study area that reduces the review area at and along the Y Lines. The NRTR assessed the correct project study area so no additional field surveys or revisions to the NRTR will be necessary.

Bicycle and Pedestrian

- Bike and Ped typically recommends a multi-use side path for this type of project but plans to consult with the Towns and CRTPO before making a recommendation.

Location and Survey

- Mapping for the project has been requested.

Rail

- No comment

CRTPO

- The Metropolitan Transportation Plans for CRTPO and CRMPO are being updated and will be completed in May 2018.
- The NC 73 Group assessment of future growth and planning is considering speed limit.

CRMPO

- Same comment as CRTPO.



MEMO

TO: Meeting Attendees
FROM: Adam Karagosian
SUBJECT: Meeting to discuss NC 73 Intersections (R-2632AB and R-5706A)
DATE: October 19, 2018

Attendees

Theresa Ellerby (NCDOT PMU)
Stuart Basham (NCDOT Division 10)
Mike Reese (NCDOT)
Bill Cox (Huntersville)
Jack Simoneau (Huntersville)
Stephen Trott (Huntersville)
Travis Johnson (Davidson)
Jason Burdette (Davidson)
Tyler Beardsley (Cornelius)
Aaron Tucker (Cornelius)
Brock LaForty (WSP)
Jennifer Starnes (WSP)
Adam Karagosian (WSP)

A meeting was held at Huntersville Town Center at 10:00 AM on October 2, 2018 to discuss the typical sections and intersections in the R-2632AB and R-5706A projects (NC 73 between NC 115 and Poplar Tent Road).

Adam Karagosian of WSP presented a powerpoint presenting the typical sections for R-2632AB and R-5706 and design concepts prepared for the NC 73/Davidson-Concord Road intersection and the NC/73 Poplar Tent Road intersection.

Typical Sections

- There were no specific comments regarding the typical sections.
- Cost-Sharing for multi-use path: Bill Coxe explained that the NCDOT Complete Streets Policy is undergoing internal review and is expected to go to the Transportation Board in February. Cost-sharing policy is expected to be clarified based on the policy review. Theresa Ellerby indicated NCDOT will coordinate with the Towns regarding cost-sharing when more information is available. Stuart Basham explained that current cost share is population based.

Davidson-Concord Road

- Adam presented four concepts that have been considered at this intersection, as well as traffic and human and natural environment impact information for each.
- NCDOT favors a Superstreet at this intersection that can be easily converted in the future to a Quadrant intersection in the southwest quad, the northeast quad, or both depending on future development plans and the future Prosperity Church extension.
- Stuart pointed out that the Prosperity Church Road Extension is not in the current MTP. Bill stated that the Lake Norman Transportation Commission is currently analyzing the Prosperity Church Road Extension alignment as part of a larger area study
- Jack indicated that the property in the southwest quadrant has as an approved rezoning plan (the Huntersville East development). Jack requested that WSP provide our SW Quad concept overlain on the Huntersville East plan for his information. Jack will provide WSP with the plan.
- Travis Johnson indicated that conversations have taken place with developers regarding the property in the northeast quadrant but there are no solid plans for development at this time. Travis asked if multi-use paths are included along the NE Quad roadway. Jennifer Starnes stated they are not included in the concept.
- Jennifer noted that a potential relocation of June Washam Road would be a two-lane roadway with turn lanes.
- All attendees agreed that the Superstreet design is acceptable with the long term possibility of converting the intersection to a quadrant(s).

Poplar Tent Road

- Adam presented three concepts that have been considered at this intersection, as well as traffic and human and natural environment impact information for each.
- NCDOT favors a Quadrant intersection in the southwest quad. This matches the concept in the Town of Huntersville Small Area Plan.
- A shift of the Renaissance Road realignment shown in the concept will be analyzed to move the connection with the quadrant road to the north. Mike Reese mentioned that any tie-in of the Renaissance Road to the quad roadway cannot impact queuing on the quad.
- Dual lefts from the NC 73 to the quad were discussed (concepts currently includes one left turn lane here). This would require adding another lane to the quad presented in the concept. WSP will look into adding a 16' island on the quad to accommodate a future additional lane.
- The Town of Huntersville agreed that a SW Quad is acceptable.



Other Intersections

- Bill Coxe indicated that the Ramah Church Road intersection will be signalized in the near future and turn lanes would be added.
- Bill asked if the traffic analysis considered Ramah Church Road and the existing signal at Bradford Park. Brock LaForty stated that he thought the intersections would have super street treatment but would have to confirm with WSP's traffic group.
- Bill indicated that the Town would like a left over at Jamesburg Road.
- Bill indicated that the Town is studying a thoroughfare crossing of NC 73 at Parr Drive.

Action Items

- WSP to overlay the SW Quad design on the Huntersville East plans and provide a map to Huntersville.
- WSP to provide a copy of the presentation to Davidson.